

MANUFACTURERS RECORD

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AS AN EXPONENT OF AMERICANISM.

IN order to make the work of the MANUFACTURERS RECORD as an exponent of Americanism as effective as possible by reaching an ever-increasing number of people, we feel justified in asking those who believe in the work this paper is doing for the nation to co-operate with us by passing on to all their friends a word of endorsement of this effort to voice the spirit of America and a suggestion that they subscribe for the MANUFACTURERS RECORD if not already doing so.

In this way we believe it will be possible to greatly broaden the scope and influence of the campaign in which for three years we have unceasingly sought to awaken America to the stupendous task we face. If America should not be thoroughly awakened and the latent patriotism of the land be quickened into a living flame we could not win the war. We shall win it, but only by the power of this awakened and quickened life of the whole nation, and the length of the struggle and the penalty we must pay in blood and treasure will be in proportion to the quickness and thoroughness of this awakening. Every man must, therefore, do his part, not his "bit," for that sounds small, but the very utmost of his being, mentally, morally, physically and financially, to bring about this awakening.

Into this mighty task each one must put the last ounce of his strength.

We invite you to join us as we seek to do our part.

Postmaster John T. Bryant of Monroe, La., in a letter to the MANUFACTURERS RECORD, which is very much in line with the foregoing suggestion, makes the following statements, which we commend to the attention of our readers:

If I were a man of wealth I would have the MANUFACTURERS RECORD sent regularly into the home of every preacher, school teacher and doctor in the South, and I would write each one of them a personal letter calling their attention to the living spirit of true Americanism and timely wisdom which literally oozes from your patriotic editorials, and I would urge upon each of them to read every line of each edition and spread the doctrine among the people.

I am sending to you herewith a list of names of the school teachers, members of the school board and of the police jury of Ouachita parish, Louisiana, with their respective postoffices.

I hope you will send each one of these parties a copy of the MANUFACTURERS RECORD for their careful examination. No card or circular-letter from you or anyone else can give these people any correct conception of your paper or its splendid work. Let them see a copy and read it for themselves.

I mailed all the above parties a copy of Dr. Newell Dwight Hillis' address.

The President's Message a Call to the Moral Forces of the World.

THE world is to be congratulated upon the force and clearness with which President Wilson has emphasized the great issue which all civilization faces, and the determination of the people of this country to win the war and right the fearful wrongs which have been committed.

President Wilson said:

"Let there be no misunderstanding. Our present and immediate task is to win the war, and nothing shall turn us aside from it until it is accomplished. Every power and resource we possess, whether of men, or money, or of materials, is being devoted and will continue to be devoted to that purpose until it is achieved."

That is so directly in line with the persistent statement of the MANUFACTURERS RECORD, that this nation must concentrate and consecrate every ounce of its strength—moral, mental, physical and financial—to the winning of the war, that we rejoice to know that our position is thus so directly in line with the superb presentation which President Wilson makes of our determination to concentrate and consecrate every power and resource we possess of men and money and materials to this one great issue. His message is a ringing call to right-thinking people of all the world. It is a challenge to all the moral forces of civilization to join in this great contest. It is a distinct notice to the people of Germany that there can be no peace with the rulers of a country who have reddened the world with the blood of the millions murdered by their diabolical activities.

The MANUFACTURERS RECORD has so persistently insisted that war should be declared upon Austria that we rejoice that President Wilson has called upon Congress to do this very thing, and while he does not yet call for war upon Germany's other allies — Turkey and Bulgaria — we feel that war should be declared upon every ally of Germany. It matters not what may be the diplomatic reasons which up to the present time have kept us from doing so. These people are allied with the mightiest power the world has ever known for destroying civilization and murdering millions by the wholesale, and so long as these countries stand with Germany they must suffer the penalty of their co-partnership, with all of its hell-devised activities, just as the people of Germany must, so long as they stand by Kaiser Wilhelm and his Evil Spirits, suffer the penalty of the world's supreme, unvoiceable contempt and hatred, and the world's determination to crush them unless they themselves break loose from their active and vigorous co-operation which up to the present moment they have given to the red-handed murderers who through their co-operation have made this fearful war a possibility.

Let us not forget that so long as Germans in

Germany and in this country fight by the side of Prussian militarism they are a part and parcel of all of its evil, and must pay the full penalty for the crimes which they commit; for these crimes were not specifically the crimes of Kaiser Wilhelm, but of the people who uphold Kaiser Wilhelm. The people in Germany who do this, and the people who in America, whether still holding their allegiance to Germany or claiming to be American citizens, clasp the blood-dripping hands of Germany's Evil Spirit must endure the penalty of their sin. There can be no peace, either in this country or in Europe, with such people. They have forfeited every right to claim any consideration on the part of any decent man or woman who fears God and honors womanhood and childhood.

President Wilson intimates that under some conditions the situation in Russia might possibly have been saved. In this we think he is wrong. It is hardly conceivable, considering the conditions which existed in Russia under the autocratic rule of the Czar, and the peculiar domination of the Greek Catholic Church, and the mental, and to a large extent, the practical physical enslavement of many of its people, that this mighty country of mighty possibilities in men and materials should have been able to adjust itself without revolution and counter-revolution. It is true that the power of Germany's intrigue and money has been a mighty curse to Russia. But many of the men who in Russia today are doing the devil's work have gone from America, and are the leaders in the socialistic and anarchistic agitation which for years has been a growing power in this country. They found the Russian situation ripe for their work, and they rushed to the harvest field. It is not to be wondered at, therefore, that these conditions have prevailed in Russia. Perhaps we failed in our duty when we failed to warn the Russian people as a whole that the socialistic anarchistic men who hastened from this country to Russia would become, if left alone, the very worst enemies of the Russian people, and should not for one moment be recognized by Russians. Out of this present chaos, however, we believe that Russia will be saved; that though that mighty country has not yet landed on its own feet, it will so do, and that the civil and religious liberty which these people have once tasted will never again be yielded up, despite the tremendous power of the socialists and anarchists and the devil-inspired activities of German propagandists.

BEER SOAKING AND ITS INFLUENCE.

A BALTIMORE physician gives as his opinion that Germany's brutality has been largely developed by the fact that for generations its people have been steadily soaked in beer. While this beer-drinking habit has not made them out-and-out drunkards, in his opinion it has kept them so soaked in alcohol that the moral fiber of the nation has been largely destroyed through this evil influence.

WHERE RESPONSIBILITY RESTS FOR RAILROAD CONGESTION.

IN an exhaustive study of the railroad situation published on December 3, 1906, the MANUFACTURERS RECORD gave full warnings of the dangers impending to the railroads and thus to the business interests of the country, unless at least \$5,000,000,000 should be spent within ten years for the expansion of railroad facilities. This, of course, was without considering the ordinary routine expenditures for maintenance. In that analysis of the situation, it was predicted that the ton mileage of the railroads of the United States by the end of the ten-year period would be between 350,000,000,000 and 400,000,000,000 ton miles.

This prediction was fully realized, though at the time it may have seemed a wild forecast to some of our readers. The ton mileage in 1916, recently published, showed an aggregate of 396,000,000,000 for railroads whose annual operating revenues were more than \$1,000,000, the smaller lines not being considered in this tabulation in the Bureau of Railway Economics. It is evident, therefore, that the outside figures predicted more than ten years ago as to the railroad traffic of 1916 were fully realized, and at the present time traffic is vastly greater than it was last year.

Again and again we have emphasized the need for liberal provision as to equipment and terminal requirements, but with little more effect than the usual annual appropriations of the different companies for replacements and of comparatively modest increase in the direction of trying to keep pace, to some degree, with the growth of the country.

This development would have been realized if there had been no war. It has been tremendously emphasized by the war. Now the entire railway system of the country is found to be wholly inadequate to the pressing needs of the nation for transportation. For years railroad conditions were growing serious. The increase of traffic, especially freight, was proceeding at an alarming speed, considering the poverty of facilities at great terminals and at interchange points.

The MANUFACTURERS RECORD repeatedly presented the urgency of this situation and sought to press it upon railroad men, financiers, legislators and the general public. It was pointed out that our transportation system as a whole must be vastly increased through encouragement by liberal consideration on the part of legislative and administrative authority, to the end that credit should be so enhanced that the railroads would be in a position to meet the certainty of a time when the need for transportation would far exceed the facilities, unless there should be a very great development of the latter.

But what has occurred to prevent them from accomplishing the results urgently required, supposing that the companies had manifested the fullest activity in the compelling direction? This: A year ago the Federal Government was sandbagged into giving the train employees of the railroads a large increase in pay by means of the eight-hour law which Congress adopted and the President signed in the face of threats to tie up the whole transportation system of the country. We were not at war then or the result of the labor leaders' efforts might have been different. Next the war came to us and we were obliged to get into the fight, in consequence of which, and preliminary to our own participation in the fighting on European soil, the Federal Government practically commandeered the output of the engine building and car building plants of this country to supply the equipment requirements of countries which automatically with the declaration of war came to be our allies. That shut the home lines out from getting new equipment until the urgent needs for the war could be supplied and they continue to be largely excluded from the enjoyment of these facilities. Again the Federal Government's freight is in the very nature of things given preference over all other freight and, it is charged in an article in the Wall Street Journal, that failure to unload such Government freight

promptly contributes to not only congestion at terminals, but to lack of adequate equipment for other freight. Still the preference of Government freight continues, although much of it still remains unloaded for various causes. Moreover, it is alleged that the draft for the army and the inducements of high pay in the industries have drawn from railroad service about 15 per cent. of the lines' best men and their places cannot be filled because of the general shortage of labor.

In consequence of all this the state of affairs prevailing among the railroads is alarming and the prices of their securities in the financial markets reflect the concern which is felt by investors and capitalists for their future. The lines are between the upper and nether millstone, what with inability to increase rates and the constant piling up of costs of operation, coupled with lack of labor, shortage of equipment, and freight congestion, much of it due to causes beyond their control, viz.: the demand of the Federal Government in its prosecution of the war. Surely some means of relief for the overburdened carriers must be found. The pooling of facilities East of Chicago is hoped to lessen the strain, but that it will wholly remove it none anticipate. The most serious aspect of the entire state of affairs is the lowering of the railroads' credit which must be restored if they are to be put in the position of fully facing and meeting the situation with which they are confronted. Those who are most vitally concerned in the premises are praying that the agency of the United States Government which is charged with the supervision and regulation of the roads will sufficiently see the light to afford them the relief which they ask. This granted, they may be safely relied upon, after these present trials, to "put their house in order" and build ahead, after restored credit, to be prepared for the future, although the work has been so long delayed.

An intelligent knowledge of Germany's war plans, and what is necessary to defeat them, will help win the war.

Read and distribute these two pamphlets.

Rev. Dr. Newell Dwight Hillis' Picture of Germany's War Plans and Her Atrocities in Belgium and France

[Reprinted from Manufacturers Record, Oct. 18, 1917.]

\$4.00 a Hundred 5 Cents a Copy

AMERICA'S RELATION to the WORLD WAR

SHALL OUR NATION LIVE OR PERISH?

(A 52-page Pamphlet.)

BY RICHARD H. EDMONDS

Editor Manufacturers Record.

\$10.00 per Hundred 10 Cents a Copy

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WHY MUSCLE SHOALS?

The MANUFACTURERS RECORD thought The Columbia Record was over-enthusiastic in support of the claims of this city, but we based our argument mainly upon the statements by engineers that it would require something like four years to get the power plant built in the

Muscle Shoals territory, whereas power could be delivered in Columbia within 30 days.

We could not furnish as much power ultimately, but the quality would be just as good. If haste is the only consideration, why should the Government ever have put all of its eggs in one basket—at Muscle Shoals?—Columbia Record.

Because the army engineers recommended Muscle Shoals as the proper place, and because, without waiting for the full development of the water-power, 30,000 electric horse-power can be had from other plants already in operation at nearby points. Moreover, there were many other factors which the experts took into account in recommending Muscle Shoals as the proper site.

A FRANK ADMISSION FROM DETROIT.

C. S. WHITE, 493 Monterrey avenue, Detroit, Mich., is evidently not very enthusiastic about the MANUFACTURERS RECORD, for in a letter, he says:

I am in favor of letting this nation live; but if the life of the nation depends upon my subscribing for your magazine, why, let her go to pot.

We do not know Mr. White's proclivities, or whether there is any thought of pro-Germanism in his make-up or not; but evidently he is not an enthusiastic admirer of the MANUFACTURERS RECORD, and it is possible to imagine that his patriotism may not be very deep and broad, since he would prefer to let the nation "go to pot" rather than to become a subscriber. There may perchance be a good many others in the country who feel the same way; but they do not seem to be quite so open in their statements on the subject.

EVERY CHURCH IN A VIRGINIA COUNTY MOBILIZED FOR AGGRESSIVE WAR WORK.

WE have recently called attention to the active work of the women of Wise county, Virginia, in stirring up the people of that community to an understanding of the war. An additional illustration of what they are doing is given in a letter from Mr. W. G. Coutts of Big Stone Gap, Va., who, writing on the subject, says:

The Federation Ladies' Civic Leagues of Wise county, after having set the pace for the whole State of Virginia in the food card pledge campaign, have started a new drive to help lick the Kaiser, and are having all the leading ministers in Wise county read Dr. Hillis' address on German atrocities, as published by the MANUFACTURERS RECORD, as their sermon on next Sunday morning. Word has been sent out to get every progressive citizen and pack the churches as they never have been crowded before.

Wise county women are making a national reputation. Honorable mention is due Mrs. G. E. Henser, president of Wise County Federated Ladies' Civic League, and Mrs. R. G. Irwin, vice-president, and Mrs. Pettit, manager of publicity. Mrs. Henser's slogan to "take Wise county clear over the top" was an inspiration to all the ladies to canvass Wise county as it never had been canvassed, even when the whole State and Governor Stuart made their famous drive to put Bascom Slemm down and out.

Dr. Hillis' sermon is great stuff. Let us hope the example set by the Federated League of Wise county will be an inspiration to other women all over this fair land of ours, and that our ministers are offered this suggestion and opportunity to serve a great cause and arouse our citizens and force home the facts.

Every subscriber must realize his obligation to help spread Dr. Hillis' message. No community, however small, but has its Red Cross Association which could follow the example of our Federated League and have the ministers of their county spread the message.

A later letter from Mr. Coutts says:

Wise county is to be mobilized to hear Dr. Hillis' sermon read in all the churches Sunday morning, December 9. Arrangements had already been perfected to have it carried out in five of the leading churches on December 2, but Mr. Ottis Mowser, leader of the Food Conservation forces in Wise county, after reading Dr. Hillis' sermon in the November 22 issue of the MANUFACTURERS RECORD, decided to handle the matter on a war basis, and have this sermon read to every congregation in Wise county. The postponement is necessary to secure the necessary copies of the MANUFACTURERS RECORD to go round to all the preachers. I am enclosing \$15 and a list of 100 names, to which you will please send that issue.

How Does the Government Stand on the Use of Coal and Transportation for Breweries, and Race Track Horses in View of the Acute Situation of Coal and Railroad Facilities?

A DISPATCH from New Orleans published in the daily papers on November 30 said:

Five thousand persons were on hand for the opening of the winter racing season at New Orleans. Winners at the new Shrewsbury track were: Lady Eileen, Pil-sen, Phochion, Runes, Cliff Field and Libyan Sands.

Here were 5,000 people and all the paraphernalia connected with their transportation attending a winter racing meet at New Orleans. Every ton of coal that was used in carrying these people, every pound of material used that lessened the supply of things needed for the war, was an absolute waste. More than that, it was a curse to the country. Had this racing season at New Orleans been the only one in the country it would have been bad enough, but at other places where race track gambling is permitted similar conditions exist and the coal and other materials so sadly needed by the country were being consumed in order to permit horse race gambling to be carried on.

The MANUFACTURERS RECORD called attention last week to the fearful waste of coal for the running of breweries, and lessening transportation now so badly needed and also lessening the supply of food and foodstuffs.

Bearing on the same question is an interesting letter from F. A. Churchill of the Dunn Wire-Cut Lug Brick Co., Conneaut, O., a copy of which Mr. Churchill sends us. It was addressed to Judge Lovett, chairman, Priority Shipments, War Industries Board, Washington, and is as follows:

Conneaut, O., November 26, 1917.
Hon. Robert S. Lovett, Chairman,
Board of Priority, Council of National Defense,
Washington, D. C.

Dear Sir—In your letter to the MANUFACTURERS RECORD, Baltimore, explaining Order No. 2, relating to road materials, you say:

"We are forced to a choice between highway material and coal essential for war industries and domestic and other essential uses.

"I trust that you will not misconstrue as disrespectful the query: Does Order No. 2 apply as well to material used in paying the road to Hell? In other words, are fuel and grains for the use of breweries and distilleries classified as essential? Does Order No. 2 design to curtail the use of cars for shipping the products of breweries and distilleries as a means of expediting the transportation of fuel and material needed by war industries?

"Breweries are using enormous quantities of coal and grain, yet the patriotic people of this country are stinting themselves in food and in many sections they are suffering actual discomfort from lack of coal.

"I learn from the newspapers that the public schools at Dayton, O., may be forced to close on account of coal shortage, although brewery side tracks are filled with cars loaded with coal.

"As I have seen no report touching the brewery phase of the transportation problem, I take the liberty of asking a few questions for the information of an important industry:

"(1) Are manufacturers of road materials placed on exactly the same plane as breweries and distilleries with respect to coal supply and cars for shipping products?

"(2) While the people everywhere are cheerfully denying themselves food in order to conserve the national supply, is any restriction put upon breweries and distilleries as regards the consumption of grain?

"(3) Is the freight congestion on railroads aggravated to any extent by shipment of fuel or grain to breweries and distilleries or by shipment of beer or fermented liquors from such institutions?

"In the most respectful spirit I submit the foregoing questions, and not only I individually, but thousands of men affiliated with a great industry would appreciate answers from you.

"I am not a temperance fanatic. I write as a man engaged in a business which is sorely hit by Order No. 2.

"I cannot conceive it possible that the Federal Government would discriminate against road material and put in the preferential class the coal and grain and

beer and liquor of breweries and distilleries; nor can I believe that the Government would withhold coal from schools, churches, hospitals, homes and legitimate industries, or lay an embargo upon cars for shipping road materials, and at the same time allow wide latitude to breweries and distilleries.

"I have heard of no breweries shutting down because of lack of coal or transportation facilities, but I know of plants engaged in making road materials having to shut down because of fuel shortage and car shortage for shipment of products. I know of other plants preparing to shut down for the same reason.

"No true American hesitates to make any necessary sacrifice, even the supreme sacrifice, if need be; but sacrifices forced by discrimination are a different thing.

"I beg to assure you that I write for information rather than for the purpose of criticism, and I know that if your answer is what confidence in the wisdom and fairness of my Government assures me it ought to be, it will strengthen the patriotic resolution of an industrial army of men to bear with fortitude the ills of the emergency measures of war."

Yours very truly,

F. A. CHURCHILL.

The statements made by Mr. Churchill demand consideration of the country. He points out the fact, as we have recently done, in regard to the scarcity of coal and shortage of transportation and he says that while brewery side tracks at Dayton, Ohio, are filled with cars loaded with coal the public schools of that city may be forced to close on account of lack of coal.

We do not believe that the Government can get away from a question which has been put squarely up to it in regard to cutting out the entire brewery business and the handling of transportation of alcoholic liquors of all kinds as a war measure. Unless the Government cuts this business entirely out of all transportation and out of the use of coal, it can have no moral right to cut out transportation of anything else on earth, or to require the closing of any plant for lack of fuel.

The production of coal, of foodstuffs, of iron and steel and other things needed for the war and the building of ships is greatly hampered by the fact that many of the men working in these industries have their efficiency lessened by much drinking. There can be no possible argument in favor of permitting the continuation of the whiskey and brewery business when transportation and coal and foodstuffs are all so short. The use of these materials or of transportation for the production or the handling of beer or alcoholic drinks of any kind is now a criminal waste which President Wilson and his advisers cannot overlook. If the Government will cut this business entirely out, purely as a war measure, leaving, if need be, to the future the question of the moral issue, it will be rendering humanity a service of inestimable value.

Bearing on the use of coal and transportation, when both are acutely short, for the production of beer, Mr. E. D. Leach, the Assistant State Fuel Administrator of Ohio, is quoted as saying:

If the Lusitania were now floating the seas, the coal used annually in the manufacture of beer in this country would furnish fuel for 726 round trips for the giant ship, and transport 23,595,000 tons of supplies to the Allies.

Coal used for the manufacture of beer in Ohio alone would furnish more than 60 round trips, and carry nearly 2,000,000 tons of supplies a year.

It requires 180,000 cars of coal, or 3000 trains, to move the raw material to the breweries.

We have heard a great deal about the grain in the beer and about the sugar in the beer, but we have heard little about the coal in beer.

Coal is one of the principal ingredients. It takes almost exactly a pound of coal to produce a pint of beer.

What is to be the Government's stand in the light of the facts presented as to the criminal waste of fuel, or food material and of transportation? Dr. Garfield is urging that in private homes, on street cars, and in many other ways fuel should be saved to the utmost extent, but we have not yet seen any

direct statement from Dr. Garfield insisting that the supply of fuel to the breweries shall be cut out. Judge Lovett issued an order cutting out practically all transportation of materials for building highways and streets, things which are absolutely essential to the welfare of the country, and more essential in war times than in peace. But we have not seen that Judge Lovett has refused the use of cars for handling coal to breweries, the use of cars for race track horses, or the use of cars for the materials which enter into the manufacture of beer, or the use of cars for the distribution of beer and whiskey.

President Wilson has rightly appealed to the nation for increased production of everything which enters into the maintenance of the war, from foodstuffs to ships, and also the cutting down to the greatest extent possible of the consumption of foodstuffs. But we have not yet noticed that President Wilson has taken a definite stand on the cutting out of the manufacture and the handling, and the distribution of all brewery and other alcoholic products.

Where does the Government propose to stand on these great economic measures, even if we disregard for the time the moral issue involved?

THE GERMAN MATERIALISTIC THOUGHT

AN illustration of the German mind of materialism, regardless of all other conditions, is interestingly given in a statement credited to the President of the Reichsbank. It is stated that in a recent speech at Frankfurt-on-the-Main, commenting upon the great material wastage of continued war, and referring to the fight of the Allies, he said:

"Of what use will be the victory of any principle if there is neither strength nor money in order to carry it out?"

In this question we have an apt expression of the German thought. Great moral issues are not involved, from their point of view. In this expression everything as to the question of principle is thrown aside for a consideration as to the money side. That individuals may prefer to die rather than to suffer dishonor, and that nations may prefer to fight to the bitter end rather than be enslaved by Germany's domination, does not seem to enter at all into the thought of the president of the Reichsbank. On the contrary, he clearly asks, "Of what use will be the victory of any principle if there is neither strength nor money in order to carry it out?" And in strength he means not spiritual or moral strength, but purely physical power. He has not a single thought to indicate sublime self-abnegation and consecration to principle, but merely an effort to prove that it is a waste of time and money and men for England and France and America to fight for any principle. Principle counts not with the president of the Reichsbank in this statement. He thinks only of strength and money.

It would be difficult to find a better illustration of the whole German trend of thought for the last 25 years than is here so clearly expressed. The statement as credited to the president of the Reichsbank is as follows:

The nations of the Entente do not yet appear to understand that a continuation of the war will lead to an unavoidable impoverishment of Europe, no matter how it ends. This impoverishment means a complete dependence upon America, which possesses more raw material than any other country. Europe will be for many decades the slave of her war debts and forced to import commodities from America. This gloomy prospect becomes all the more evident the longer the war lasts. There will no longer be buying and selling among the peoples of Europe, as the international exchange of wares will be completely taken up in meeting the demands of each country. It is hopeless to think that there will be an exception for one's own country. Industrial conditions are the same everywhere. The French and the English will not be any better off than the Germans, although they cannot be brought to understand that with every month the war is prolonged an industrial year is lost. Five or six hundred milliards of industrial capital which has been used up is not to be regained in a year or in several years. Of what use will be the victory of any principle if there is neither strength nor money in order to carry it out? Every new war loan should further national knowledge instead of being used to deceive the opponents.

THE MARKET FOR MUNICIPAL BONDS AND THEIR RATES OF INTEREST.

PROMPTED by an inquiry from the Clerk of a Southern town of about 5000 population concerning the probability of disposing of an issue of \$50,000 of school bonds which are to be voted on next month, and also by a desire to obtain a consensus of opinion as to the market for municipal securities this winter, the MANUFACTURERS RECORD addressed letters to several important financial houses in different cities which purchase "municipals," as they are commonly termed, and the results are very interesting and enlightening. Although names cannot be given, it can be said that the replies are from concerns of acknowledged high repute and substantial standing. One of them says:

"As a 6 per cent. bond, we will state that, in our opinion, the town will be able to obtain par, or possibly a small premium, but we do not think they could sell a 5 per cent. bond as they have done in the past. There is a market for a 6 per cent. bond of a fair-sized town such as —, but neither this town nor others of a similar showing can, in our opinion, expect to obtain funds for improvements needed at rates of interest that have applied heretofore. This, of course, is due entirely to the war situation, and is to be expected, considering conditions that exist in the financial world."

Another firm says: "If the bonds were being offered for the present market, we would strongly recommend that they be issued as follows: Interest, 6 per cent., payable semi-annually; both principal and interest payable at some bank in New York city; maturities, \$5000 each year, the first maturity 20 years after date. It would be of assistance to the town to have their proceedings approved by some recognized bond authority in New York city." After also saying that arrangement should be made with a company of standing to have the bonds prepared and certification made as to their genuineness, the letter continues: "In these times a municipality wants to be assured, when it accepts a bid, that the bonds will be taken up and paid for in accordance with the bid. At the same time the bidder wants to be assured that the legality of the issue will be passed upon and approved by some recognized authority. With this assurance, the bidder will be willing to submit an unconditional bid. If the above suggestions are followed, we do not think the town will have any difficulty in disposing of its bonds at par. You will appreciate that it is rather difficult to forecast the future 60 or 90 days. Bond prices, however, have reached a level which should withstand most anything short of a calamity without any further decline."

A third prominent house expresses the following view: "Owing to the conditions which are now prevailing, it is practically impossible for us to say whether or not these bonds could be sold when they are ready for the market. * * * The bonds cannot, of course, be sold until after they have been voted and the necessary legal proceedings taken. However, we believe the bonds will be marketable if the town offers a 6 per cent. issue. We can give you no assurance that they will be able to sell the issue at any rate less than 6 per cent. The town might advertise the bonds at not exceeding 6 per cent., which would give them an opportunity to realize a rate lower than that if conditions at the time of sale justify it. We might add that school bonds, such as these, are the most desirable type of bonds for our investing public, and we will certainly make an offer for the issue at the time it is placed on the market if conditions do not absolutely prohibit our doing so."

Still another house, after remarking that the Town Clerk, like many other officials of small towns, asks for information without giving the financial statement of his town, "without which no clear-cut idea can be expressed," proceeds to say: "Our judgment would be that unless there is some decided improvement they may have some difficulty in selling these bonds as 6s. However, we note that the election is to be called for the 9th of January and that the date of sale is not given. The time of sale would be an important factor, in our opinion, as it is presumed there will be another very large Government loan put out in February."

Another letter says: "We are fearful that the

city will not be able to sell these bonds unless money conditions ease up materially by January. At the present time bond dealers are purchasing very few bonds because of the money conditions, besides having a limited market, due to the purchase of Liberty Bonds by the investing public."

These expressions from sources of authority reveal that good municipal bonds will probably find a reasonably ready market this winter if their rates of interest are somewhat higher than heretofore. Five per cent. has been the most common rate among Southern towns for their bond issues, and it is therefore mentioned herein as being of the past, the 6 per cent. bond having become a necessity because of the greater opportunities presented to capital in consequence of the war and its urgent demands that have forced money rates to higher levels. But everything benefits accordingly, so there is no good reason why municipal improvements should cease, and there are many reasons why they should be pushed so that populations may obtain the sooner their advantages. More and better schools, better water and lighting facilities, improved fire departments, etc., all are necessities and ought to be provided, even at an increased rate of interest on loans, particularly when it is to be remembered that in all probability it must be years before money rates return to their old low figures.

THANKSGIVING.

NOVEMBER, 1917.

For what shall we give thanks, Lord God of Hosts?
For this—for this:

That we were born into this wonder time
That sees the death throes of world-slavery,
And that we stand amid the bannered hosts
And bear an unsheathed sword for Liberty—
Thank God that we were sired AMERICANS,
Shrived of ignoble taint of cowardice,
And that our blood, through ceaseless years, ne'er ran
Thin with the craven fear of sacrifice.

For what shall we give thanks, Lord God of Hosts?
For this—for this:

That we are brave with truth, not barbarous;
That in our hearts and souls there doth abide
The vision of the Nazarene,
His thorn-crowned head and spear-pierced side—
Thank God that on the bloodiest battlefield
Where Death has harvested and Glory gleams,
Holding us fast to ancient faiths and creeds,
The Cross of Calvary forever leans!

For this we give Thee thanks, Lord God of Hosts,
For this—for this.

—Sara Beaumont Kennedy.

[We cannot give credit to the publication in which this first appeared because we do not know whence it came.—
Editor Manufacturers Record.]

SPREAD THE FACTS AS TO WHAT IS SUCKING THE LIFE-BLOOD OF THE SHEEP INDUSTRY.

AS indicative that the country is awaking to the evil wrought the sheep industry by the wandering, uncontrolled, unlicensed dogs, there may be cited a few excerpts taken from recent issues of some leading daily papers of Georgia, Virginia, North Carolina, Florida and Texas.

Upon an address made by Governor Dorsey of Georgia before the Interstate Conference of Land-owners at Savannah last week, the Savannah News makes the following editorial comment:

Governor Dorsey said yesterday in his speech that the day is not far distant when Georgia will take her rightful place among the States in regard to the sheep industry. She should have done so long ago, but certainly there is no excuse for much further delay, now that both the flesh and the wool of sheep are in unusual demand. He put his finger on the big reason why Georgia has been backward in sheep raising when he said he had been told that "we liked dogs better than sheep." That is true as concerns a great many Georgians.

Some Georgians seem to like ticks better than cattle, too, but the number of them is rapidly decreasing. It may be expected that as the sheep raisers increase the dog raisers will become fewer. Dogs are all right in their place, but their place should not be so extensive that it prevents the raising of sheep by the neighbor of the dog's owner. What Georgia needs, among other things, is fewer dogs and more sheep. This State is, by virtue of climate, water and soil, peculiarly well adapted to the raising of big flocks. But what does it raise in great numbers? Sheep? No, dogs! Why?

Perhaps because of that same foolish notion that has led men to fight efforts to eliminate the cattle tick and that has caused some other men to refuse to destroy cot-

ton stalks after the cotton is all picked. Georgians must learn to pull together for the common good. They must learn that this is no pioneer State where every household is a complete world, but a rapidly growing State in which every man must not be so intent on getting what he thinks are his own rights that he interferes seriously with the rights of his neighbor. It is not right for one man, by letting his dogs run free, to prevent his neighbor from raising sheep. It is not right for one man, by permitting his cotton stalks to stand in his fields and give a home to the boll-weevil as the winter comes, to make sure that his neighbor's cotton patch the next season will be full of weevils. It is not right that a few men by dynamiting dipping vats shall prevent their neighbors from speedily ridding their pastures of the cattle tick. Georgia needs yet a little more of the spirit which recognizes the value of co-operation and which respects the rights of others.

A. Jeffers, in the Norfolk Virginian-Pilot, estimates that of the total of 25,000,000 dogs in this country, fully 20,000,000 of them are not only useless and worthless, but are a menace to humanity. "These must either be fed by the owners," he writes, "or allowed to forage for their food. Not one cur dog in 100 pays his keep, not one cur dog out of 100 is kept at home and properly fed; not one in 100 is taxed or tagged; not one in 100 owners, or so-called owners, of cur dogs can give a reasonable, legal or valid excuse for keeping the curs; but if a low-bred, inbred, nobred cur is killed while committing depredations upon law-abiding citizens, a great hue and cry is the result.

"Too many, altogether too many, useless ones to feed and too few sheep. Put away the dogs and have more food for our friends—the Allies—the starving poor of Europe."

From Texas the Dallas Morning News gives the following from the State Press:

A correspondent writing to the State Press said: "Last week a poor woman died of hydrophobia and the five children who were bitten by the same dog were sent to the Pasteur Institute at the expense of the community." Is that not an eloquent indictment of the dog? Is not one human life, the safety of one school child worth more than the dogs that could be rounded up in a day's journey? Nevertheless, judging by the State Press' mail, the dog has as many defenders as the child has. State Press has owned dogs that he loved, and one dog grave in particular he recalls having wept over in all sincerity. But there is no use in getting woolly over this matter of dog sentimentality. There are a few dogs worthy to live, perhaps in luxury, but darned few; and the great majority of canines are useless, predacious, disease-carrying, terror-inspiring, rabies-generating animals, utterly out of place in this century.

In the News and Observer of Raleigh a correspondent writing on dogs and the food problem says:

Dogs are eating soldiers' food! And to make matters worse, almost if not quite nine-tenths of them are useless dogs. North Carolina is feeding to these same useless dogs, day after day, more good wholesome food than is required for her soldiers and sailors engaged in this war for world freedom.

The Plant City (Fla.) Courier, in publishing a report issued by the sanitary office, shows how an effective dog-controlling law will rid a community of the wandering cur. It says:

Ninety-three dead animals were removed during the year, of which 87 were dogs. This shows to what extent the canines were reduced when the Mayor ordered the muzzle law enforced.

The Augusta Chronicle in a recent editorial on "The Sheep vs. the Dog," states:

The ever-increasing need of wool and of meat is going to force the issue in coming Legislatures, as it has never been pressed before, between sheep-raising and dog-raising in the South. Just as the wisdom and common sense of the people finally won out in the "no fence" law, and farmers saw it was cheaper to fence in their hogs and cows than it was to fence whole plantations to protect them against strolling cattle and hogs, just so they will realize at length that it is better to kill, or fence in, or chain their dogs, and raise profitable crops of wool and mutton than to sacrifice the chance to have this valuable product, in order to let worthless dogs run at large.

Relieve the sheep industry of the menace from dogs, and every farmer could raise a few sheep and wool, which is as much a ready-money crop as cotton, and less trouble to produce. They go together very well. Ten million sheep on the hills of Virginia, the Carolinas, Georgia, Tennessee and Kentucky would not lessen the production of cotton by a single bale.

Let the thinking people of the nation get together and see that dog laws are enforced or new laws enacted that will control the wandering curs, that the raising of sheep may again be feasible in the cur-infested country and in this way add to our sorely diminishing source of meat and wool supply.

HIGHWAY WORK MUST BE PUSHED AS A WAR MEASURE.

EVERY move made to lessen the amount of highway work in this country is a move against our ability to win the war.

Indeed, every effort of this kind, whether done by the National Government or by others, would be as unwise as has been the policy of the Government for many years in railroad matters, which has now brought about the collapse of the railway systems of the country and their utter inability to handle the nation's traffic. Railroad transportation has largely broken down. It cannot for years to come be developed sufficiently to meet our actual needs during the war. It becomes imperative, therefore, that motor-truck transportation of freight and automobiles for passenger work must be developed on a very large scale. There is no other way possible to help to supplement the railroad situation so quickly available as this.

It is true that water transportation must be developed by barges and steamers in the interior and by sailing vessels and barges and every other available boat along the coast. But highway transportation by motor trucks and automobiles is vital to the nation's existence. This statement, as strong as it may seem, is nevertheless true. If transportation completely breaks down, we cannot win the war, and transportation is in a desperately bad way and is steadily growing worse, for even if the railroads could catch up with the present congestion, they are overworking their engines, their cars and their roadbeds, and thus exhausting their physical condition.

Highway building becomes more and more important to national life in this time of war, and every movement made by the Government to cut out the handling of highway materials cannot be classed otherwise than as shortsighted and dangerous. We must build more highways of the most substantial character, and we must keep up to the highest measure of efficiency existing highways, and not a day is to be lost in doing this work, for every day lost will count against us.

OUR ALL IS AT STAKE.

"AS to your inquiry in regard to my business or profession: I am in the mercantile business, and sell iron-ore lands on the side; but main idea in life right now is to lay down everything and help lick the stuffing out of the whole German people. Send me 50 copies of 'Why We Are At War' and a sample of the Hillis article."

The foregoing is an extract from a letter from Mr. C. E. Wilson, Jr., Russellville, Ala., to the MANUFACTURERS RECORD. Mr. Wilson gives voice to the feeling which must animate all Americans, viz.: That we must lay down everything and make our main idea in life the supreme necessity of winning this war.

We are at war not for any theory as to government, not for any theory as to the world being made safe for democracy, but we are at war for the one final struggle to save the womanhood and the children of this nation, and to save civilization itself.

We are at war to save Christianity from being destroyed by atheism, civilization from being destroyed by barbarism.

We are at war in order that we may not forever be slaves to Germany, and slaves we shall be unless we win the war, and worse infinitely than slaves, for slaves have always been protected and their women and children protected; but this would not be the case if Germany was our master.

All that is in us, and all that we have, and all that civilization has known, is at stake.

GENERAL PERSHING'S MESSAGE TO AMERICA.

GENERAL PERSHING recently sent through Bishop Luther B. Wilson, who was in France on a commission for the Young Men's Christian Association, a message to the American people and it was as follows:

"Tell them there is no ground for the heresy that Germany cannot be beaten.

"Germany can be beaten.

"Germany must be beaten.

"And Germany will be beaten."

This is the message which comes from America's leader at the war front and this is the message which must be carried into every home in America. However great the task, however stupendous the sacrifice that must be made, America must meet the issue and fight to the finish.

No greater calamity could come upon the world than a premature peace, a German-made peace. If a German-made peace should, for a moment, be considered by this country, we would prove recreant through all the centuries to come to our responsibility to man and to God.

Germany's definite campaign, planned for many years, to overrun the world with its barbarism and its domination is a challenge to all the power of this and every other civilized nation. It is a challenge to all the moral forces of the world.

Germany, the red-handed murderer, whose crimes surpass those of all the ages, is persistently, as it has been doing for many months, seeking here and

THIS NATION'S BUSINESS IS TO WIN THE WAR

there to utilize some men of prominence to advocate a premature peace. The devious ways which have been adopted by Germany, its treachery, its readiness to use any means, it matters not how unscrupulous they may be, only serve to emphasize the fact that we cannot trust any man who today would be willing to yield to German's peace campaign.

Shall civilization permit those who have died by the millions, in defense of women and children and all civilization, to have died in vain? Does not civilization recognize that peace without punishment would be a premium upon crime and that peace now, upon Germany's terms, would mean the certainty of complete world domination by Germany, the international outrager and murderer, or else a succession of wars for years to come?

It is not ours to choose. The war has been forced upon us, as it was forced upon France and England and Serbia and Russia. It was a war foreordained by Germany's leaders, who not only had in view the ultimate domination of England and France, but the ultimate domination of America. We may shudder at the awful reality of war—and every man necessarily shudders as he contemplates the situation, but when a murderer enters a man's house at midnight, seeking to destroy his family, he may shudder at the horror of the situation, but he is compelled to recognize that the issue has been forced upon him and that it is not his to choose. The war has been literally forced upon us, as it was upon England and France, and we have no power of choice. All that is in us, all that we love and revere, all that mankind has achieved in its struggle from barbarism to civilization, from the dark days of the past to the enlightenment of the present, all that we hold dear in womanhood and childhood, in religion and civil liberty, in freedom, all are now at stake.

Nothing but a determination to recognize the truth of General Pershing's statement—that "Germany can be beaten; Germany must be beaten; Germany will be beaten"—can save us. False to everything that is good and holy in life, and to civilization itself, is the man who takes any other view.

THE CALL TO THE HEROIC IN MEN AND WOMEN.

GREAT is the task to which America has been called. Mighty are the burdens which we shall have to bear. Limitless is the sacrifice which we, as a nation, must make in men and in money.

In every home there must be a spirit of consecration matching that of the soldier on the battlefield. Into the soldier's life must be thrown the enthusiasm of the nation standing back of him. He must feel that, to the limit of its moral, its physical and its financial power, this country is behind him. He must know that nothing will be left undone to maintain his strength, to develop his efficiency, to supply him with every comfort and convenience which the soldier can have and to assure him of the utmost limit of the fighting factors of guns and munitions and ships and the other things which enter into the making of war.

This nation has been called unto a mighty task, the greatest which the world has ever known. By the side of the task which we now have assumed, all our wars of the past, even in the aggregate, sink into insignificance. The Revolution and the Civil War were trifling in importance as compared with the war in which we are now engaged.

In the Civil War between 3,000,000 and 4,000,000 soldiers were involved; we shall have to throw into this war a much greater number. That war, which we thought was long and desperate and agonizing in its horrors, involved fewer men, fewer losses and but a trifling amount of money as compared with the struggle in which we are now engaged. The issue involved was small as compared with the present issue. Had the South won—unfortunate as every Southern man can now see that that would have been—there would have been no barbarism, no destruction of civilization, no world-engulfing horrors. Sooner or later, in the natural order of events, slavery would have been abolished, but side by side, the two countries would have had diverse interests which would have resulted in constant bickerings and perhaps in other wars; but even then there would have been no horrors to women and children, no destruction of civilization, no fight of atheism against Christianity.

Had we failed in the Revolution, barbarism would not have run rampant; civilization would not have been destroyed; women and children would have been as safe as they are now. Unfortunate, indeed, would have been the result, but we would have been as Canada is, one of the great, powerful countries of the world, holding allegiance, possibly for many years after that, to Great Britain, as Canada still does; but that would not have meant barbarism or any of the other evils which have followed Germany's war.

Had we failed in the Spanish War or in the Mexican War, no national disaster of far-reaching consequence would have come upon us.

Today, however, we face an issue that means our death as a nation or our victory over Germany. There is no middle ground. There is no peace possible short of that peace which the conqueror shall enforce upon the barbarism of Germany.

Stupendous as the task is, slow as we have been in getting ready, innumerable as are the mistakes which we have made, let us not be cast down nor view with pessimism the struggle upon which we have entered. Into this war we should throw the enthusiasm of the crusaders of old, as with joy they went forth to redeem the Holy Land from the power of the heathen world. That mighty crusade was a fight for civilization, for Christianity, but it was of trifling importance as compared with the crusade upon which we have entered. Indeed, it can scarcely be said that we have entered upon a crusade. We have simply entered upon a contest forced upon us to save ourselves from eternal destruction by Germany.

Our defeat would mean that this country would, for all time to come, be a German colony under the absolute domination of Germany. No man who studies the situation intelligently can question the accuracy of this statement; the reasons for it are too plain to need elaboration, and Germany would be welcomed to this country by millions of Germans living here and by millions of men and women of

German descent who are false to their oath of allegiance to America and would gladly join in welcoming to this country the blood-stained, diseased hands of Kaiser Wilhelm and his accursed throng.

But let us not be bowed down with the magnitude of the task. Every man who is worth being named as a man loves to be called to heroic tasks. No man of strength or force wants to be carried, as the old hymn reads, to Heaven "on flowery beds of ease;" he would prefer to fight the battle of life, to fight for righteousness over sin in his own life rather than be wafted on heavenly breezes to Elysian fields. If he is a weakling, he wants to go as comfortably "on flowery beds of ease" as the most perfect transportation facilities from this country to that can provide. But he who has manhood in him answers to the call of the heroic, and the nation calls to the heroic in men and women today, and to the nation the heroic in men and women in this land answers, "I am ready."

The task is a mighty one, but into it we shall throw the enthusiasm and the power and the life of the mightiest and most heaven-blest country on earth. We have a land of such matchless resources in natural advantages that we stand amazed at what nature has done for us. We have a land of limitless possibilities in agriculture, in coal and iron and steel, in cotton, and in the thousand and one other things which make for the nation's strength.

The Almighty calls to the nation to consecrate its manhood and womanhood and its material wealth to this, the mightiest task to which mankind has ever been summoned, and with quickening pulse and with heartbeats that tell of new life that flows through every artery of the individual's and of the nation's life, we take up the task and to the soldiers that go forward we say, "Godspeed you in your work, and behind you there shall be the utmost strength of the united power of this united nation."

A BUSINESS MEN'S GATHERING IN WASHINGTON.

REPRESENTATIVES of every industry in the country are being invited by the United States Chamber of Commerce to meet in Washington on December 12 to perfect plans for co-operation with the Government. This meeting will develop the discussion of many of the vital problems with which war industry is concerned, of priorities in transportation, with readjustment of industries to meet war demands, and the like. The industrial mobilization which it is hoped to center in Washington should be representative of the entire industrial interests of the country as outlined in the call issued by the Chamber of Commerce.

The meeting at the capital will be for the purpose of developing definite plans for the industries represented and in general to aid in work which they will be called upon to undertake. The United States Chamber of Commerce asks the industries of the country to organize committees, to be made up of representative men in the industry, whether or not they be members of existing organizations, and recommend that in all matters pertaining to any given industry the Government should deal with this group wherever possible.

A meeting of this kind may have very great significance in the handling of all the varied industrial activities of the country in connection with the Government.

FOR THE WINNING OF THE WAR.

A DISPATCH from Salisbury to the Daily News of Greensboro, N. C., says:

Mulberry Farmers' Local Union, composed of a group of progressive farmers, has resolved against the use of sugar in the manufacture of candy and syrup for soft drinks, and will endeavor to have other unions take up the matter.

Good for the farmers of that district! They have taken the right stand. When the country is suffering from the shortage of sugar the use of sugar for the manufacture of candy and of syrup for soft drinks

should be cut out; and blessed will be the time when the tens of millions of dollars, which in the aggregate are annually expended for soft drinks, are saved for better purposes, and the factories and the men and the women employed in these factories in producing soft drinks, and the bottles and the stoppers and all the other work connected with their production and sale, be turned to making things essential for the war.

SOME BUILDING OPERATIONS WHICH WILL BE HELPFUL IN WINNING THE WAR.

WRITING in regard to the plan to urge the importance of building operations, Mr. N. H. Fogg of Greenville, S. C., says:

I am starting a BUILD NOW movement in Greenville. I maintain that building material is likely to be higher in price after the war, rather than less, as many people who contemplate building think. Am getting all the reliable information on the subject possible to have published in next Sunday's issue of the local papers. Thus far the opinions I have obtained agree that building material is likely to be higher in price, rather than less. The conditions in Greenville are very congested. There is a demand for at least 100 homes. I would like your valuable opinion on the subject.

The question raised by Mr. Fogg is one which can hardly be broadly answered as to any community. From the beginning of the war the MANUFACTURERS RECORD has taken the ground that the utmost energy of the nation must be concentrated upon the things which make for the winning of the war. All else, it matters not what it may be, must be laid aside.

The supreme issue before the world is to win the war. This means a long struggle, almost limitless sacrifice, and the cutting out of many lines of business, to individual loss but to national gain, in order that the energy expended in these individual interests may be expended in the things which will help to win the war. Wherever there is an actual shortage of dwellings we believe that it will help to win the war to build dwellings sufficient to meet the needs of the public. Conservation of health and energy are essential factors in winning the war. At Baltimore, for instance, some thousands of dwellings must of necessity be built in order to house the workmen engaged in great ship-building operations which are now going on here. At Mobile the Steel Corporation through one of its subsidiaries will build 1600 dwellings because without these dwellings it would not be possible to house the men who will be employed in the construction and operation of the great shipyard to be constructed there.

This vast nation must carry on certain lines of activity in order to maintain the health and strength of its people and the prosperity essential to the buying of liberty bonds and the winning of the war.

We cannot see that there is any likelihood of building material being much cheaper after the war than at the present time. When the war is over the world must be rebuilt, and however great may be the poverty of the world at that time the demand for foodstuffs and the demand for reconstruction work will of necessity be vast.

When the war is over the railroads of this country must be completely reconstructed, or at least the railroad facilities must be fully doubled in extent. Many other lines of work will be stimulated by this railroad construction. In these war times we must build good highways, or else find the country districts going to pieces by reason of impassable roads. These are among the things which should be done. We do not believe in doing anything whatsoever that is not essential for the broadest interest of the nation in enabling us to win the war. We do not believe in the building of expensive or extravagant homes at the present time, but we do believe in the building of homes needed for the actual requirements of various communities.

LARGER PETROLEUM OUTPUT FAILS TO KEEP PACE WITH GREATER DEMAND.

THE following comparative summary of crude petroleum movement in October, 1917, represents the operation of 170 pipe-line and refining companies that handle or receive oil direct from the productive fields East of the Rocky Mountains, and is compiled from reports received by the United States Geological Survey:

CRUDE PETROLEUM MOVED FROM FIELD SOURCES.

(Barrels of 42 gallons each.)

| Field. | October, 1917. | September, 1917. | October, 1916. |
|----------------------------|----------------|------------------|----------------|
| Appalachian | 2,166,834 | 1,985,053 | 1,875,675 |
| Lima-Indiana | 298,506 | 269,784 | 325,499 |
| Illinois | 1,311,554 | 1,270,808 | 1,321,636 |
| Oklahoma-Kansas | 13,211,687 | 13,292,153 | 10,462,853 |
| Central and North Texas .. | 911,924 | 954,726 | 854,511 |
| North Louisiana | 805,857 | 815,742 | 870,490 |
| Gulf Coast | 1,815,171 | 2,097,857 | 1,565,516 |
| Rocky Mountain | 846,337 | 813,963 | 633,922 |
| Total | 21,367,870 | 21,500,086 | 18,110,977 |

CRUDE PETROLEUM DELIVERED TO REFINERIES OR CONSUMERS.

(Barrels of 42 gallons each.)

| Field. | October, 1917. | September, 1917. | October, 1916. |
|----------------------------|----------------|------------------|----------------|
| Appalachian | 2,506,650 | 1,900,751 | 1,481,798 |
| Lima-Indiana | 259,471 | 425,345 | 515,894 |
| Illinois | 1,357,581 | 923,021 | 1,732,105 |
| Oklahoma-Kansas | 15,746,384 | 13,896,479 | 11,901,946 |
| Central and North Texas .. | 882,371 | 758,633 | 1,083,536 |
| North Louisiana | 1,944,042 | 1,042,784 | 870,940 |
| Gulf Coast | 1,716,542 | 2,378,866 | 1,628,536 |
| Rocky Mountain | 839,373 | 883,005 | 579,958 |
| Total | 25,251,414 | 22,308,884 | 19,794,792 |

STOCKS OF CRUDE PETROLEUM AT END OF MONTH.

(Barrels of 42 gallons each.)

| Field. | October, 1917. | September, 1917. | October, 1916. |
|----------------------------|----------------|------------------|----------------|
| Appalachian | 4,097,888 | 4,436,704 | 4,021,289 |
| Lima-Indiana | 2,088,391 | 2,049,356 | 2,331,210 |
| Illinois | 4,180,298 | 4,226,325 | 6,911,019 |
| Oklahoma-Kansas | 98,634,636 | 101,169,333 | 97,935,271 |
| Central and North Texas .. | 3,359,498 | 3,249,945 | 4,452,890 |
| North Louisiana | 2,306,713 | 3,444,898 | 4,439,321 |
| Gulf Coast | 9,455,608 | 9,356,979 | 9,537,380 |
| Rocky Mountain | 574,512 | 567,548 | 801,406 |
| Total | 124,697,544 | 128,501,088 | 130,429,726 |

NOTE.—Statistics of petroleum movement in California are not included in this tabulation because of delays incident to procuring first-hand data.

In this report the Geological Survey states that "on the whole the foregoing summary offers a basis for optimism concerning the petroleum situation in the fields to which it relates. Gratifying increase in production is credited in October to the Appalachian, Lima-Indiana, Illinois, Central and North Texas and Rocky Mountain fields, despite the approach of winter. The apparent decline of production in the Oklahoma-Kansas field is too slight to warrant serious concern, and that charged to the North Louisiana and Gulf Coast fields is by no means discouraging. Compared with the output in October, 1916, that in October, 1917, was appreciably greater in all fields except Lima-Indiana, Illinois and North Louisiana."

But is it not the total production of crude petroleum that should be considered in its relation and comparison with demand and total consumption?

The number of barrels of crude petroleum moved from field sources tabulated in the foregoing, shows that for October, 1917, 21,367,870 barrels were moved against 18,110,977 barrels in October, 1916, an increase of over 3,250,000 barrels this year. Also the quantity of petroleum delivered to refineries or consumers in October, 1917, amounted to 25,251,414 barrels compared with 22,308,884 barrels in September and 19,794,792 barrels in October, 1916, a decrease from October of this year over the same month of last year of over 5,450,000 barrels.

And coupled with this increase in consumption, the stocks on hand of crude petroleum have been correspondingly depleted, showing that production is not keeping up with demand.

From the fields under discussion and represented by 170 pipe-line and refining companies reports, 124,697,544 barrels of petroleum were reported on hand at the end of October, 1917, in comparison with 128,501,088 barrels last September, and 130,429,726 barrels October, 1916, or a decrease in this year's over last year's reserve supply of crude petroleum of 5,732,182 barrels.

A BLUNDER IN OFFICIAL APPOINTMENT OF A BREWERY ATTORNEY.

ROBERT CRAIN is a distinguished Baltimore lawyer and largely interested in big farming operations. But Robert Crain has, for many years, been the attorney of the National Brewers' Association and, despite his intimate identification with the brewery interests, for which he has been an active and aggressive champion, he has been appointed as chairman to manage the thrift campaign for the State of Maryland, looking to the sale of war stamps, the general head of this campaign, as is well known, being Mr. F. A. Vanderlip.

The appointment of Mr. Crain is, by virtue of the fact that the brewery interests are in direct antagonism with the moral and economic powers of Maryland, a slap in the face of every man and woman in this State not allied, directly or indirectly, with the liquor traffic. However strong a position Mr. Crain may hold in this community as an attorney and a business man, he cannot be disassociated from his long-held position as attorney for the National Brewers' Association, nor can his vigorous and aggressive work in behalf of the brewers of the country be disconnected from any other work which he undertakes.

The liquor interests of the country are the greatest hindrance to national thrift; they are the greatest handicap which the nation has to bear in its effort to win the war. The entire brewery and saloon interests of the country are an economic and a moral curse, and they hang like a dead body on the life of the country and must be dragged as a polluting corpse, lessening efficiency on the farm, in the factory and in the army.

Nevertheless, the man who stands pre-eminent in Maryland as the attorney and advocate of the brewery interests has unwisely been placed at the head of the movement in Maryland designed to appeal to school children, to church members and to all others to invest in the Government thrift stamps. However eminent may be Mr. Crain as a lawyer or as a business man, his long recognized active identification with the brewery interests makes his appointment a most unwise one from every point of view. Even though he succeed in his thrift stamps campaign, and this he doubtless will do, his success will not in the slightest alter the fact that his appointment was a most unwise and improper one. The inevitable result, unless his appointment be recalled, will be to strengthen his influence in Maryland and in Washington in his fight for the German brewery interests, now cursing the country by their activities.

A MANUFACTURER'S VIEWS ON THE SALOONS IN WAR TIME.

MR. B. F. AFFLECK, president of the Universal Portland Cement Co., writes:

We may not agree concerning artificial waterways, but we are in complete accord concerning the desirability at this time, and all times, of closing the saloons and breweries. If you have any reprints of what you are publishing on this subject I shall be glad to have a number of copies.

We regret that Mr. Affleck in his enthusiastic belief in concrete roads takes the view that inland waterways are practically valueless and cannot be used profitably for the handling of freight. In this respect Mr. Affleck, so far as we know, stands alone, and his view is entirely contrary even to that of railroad officials, who believe that waterways are an efficient and economic means for transportation of freight.

Moreover, neither railroads nor highways can be built rapidly enough to take care of increasing traffic. We need all three to the utmost extent that they can be had; and the highways should be so well constructed that they will be equal to bearing the burden of the heavy traffic which must be thrown upon them. But at the same time we need the fullest utilization of the waterways of the country.

While Mr. Affleck and the MANUFACTURERS RECORD will probably never come to an agreement as to the value of waterways, unless he can be converted to that point of view, we are at least in harmony on the subject of the desirability of closing the saloons and breweries; and pre-eminently is this desirable as a war measure.

Vanderlip on War Savings Stamps

Prepared for the MANUFACTURERS RECORD by FRANK A. VANDERLIP, Chairman National War Savings Committee.

The Government has started a war savings campaign to accomplish three great purposes—to sell \$2,000,000,000 in Government securities to help finance the war; to foster habits of thrift among the American people; and by getting people to buy less in order to save their money, to conserve the products and the industrial powers of the country, so as to leave greater supplies of goods and services available to support the armies in the field.

To carry out these purposes, by an act of Congress approved September 24, 1917, the Secretary of the Treasury was authorized to issue United States War Savings Certificates for sale to the people of the United States. It was provided that the amount of certificates sold to any one person at any one time should not exceed \$100, maturity value, and that it would not be lawful for any person to hold more than \$1000 worth at a time.

The first thing to be considered in explaining these securities is a gummed stamp bearing on both sides the price at which it will sell each month, starting at \$4.12 for January, 1918, and increasing a cent each month until it reaches a price of \$4.23 in December. When a purchaser buys his first stamp he is given free a certificate on which will be written his name and address. The certificate contains twenty spaces, in the first of which the initial stamp purchased will be placed. He has now become a lender to the Government in the amount he paid for his stamp; whether there is one or twenty stamps on his certificate, his standing is the same.

His rights are these: If he holds his certificate until January 1, 1923, which is the maturity date of all stamps purchased in 1918, no matter in what month they were bought, he can get, at any money-order postoffice in the United States, \$5 for each stamp on his certificate. This return is equal to 4 per cent compound interest, compounded quarterly; the certificate is tax free on the same basis as First Liberty Loan Bonds.

If his needs require that he get his money back before this date of maturity, the Government will meet that need also. The certificate holder may go to any postoffice and on ten days' notice, so that the office may be sure to be in funds, may redeem his certificate for what it cost him plus one cent for each stamp for each month since its purchase. On the back of the certificate is printed a table showing the redemption price, so that the holder may easily compute what his certificate is worth at any given time. If he redeems before maturity he gets a little less than 3 per cent.

His certificate represents a security on which he cannot lose, not only because the unshakable credit of the Government of the United States is behind it, but also because it has been provided by the Government that the certificate cannot go down in value, but will automatically advance, because every month the Government itself marks up its price at the rate of one cent a month for each stamp on it.

In this way the financial security of the investor's purchase is made sure. The Government has also taken steps to assure the physical security of the certificates. If the holder should lose his certificate, the envelope, which the Government supplies free to keep it in, bears directions that the finder should drop it into the nearest post box without further address or postage. The postoffice will return it to the owner without charge. Should the certificate be found by an honest person there will be no question of its prompt return to the owner; but should a dishonest person find it, go to a postoffice and successfully forge the owner's name, certifying himself to be the identical person whose name appears on the certificate, and collect the money it calls for, the true owner would in that case lose, for the Government does not assume liability for loss in that manner. However, it has taken steps to prevent it in the following way:

The owner of a certificate may take it to any money-order postoffice and have it registered without cost. When it is thus registered the stamps on it are cancelled. When he adds more stamps he must take it to the same postoffice and have them cancelled also. When these conditions have been met the United States, so far as his investment is represented by cancelled stamps on a registered certificate, stands ready

to pay him, whether he loses his certificate, whether it is destroyed, burned up, or no matter into whose hands it happens to fall. He has now got a perfect registered security.

The only inconvenience is that he must deal solely with the particular postoffice at which he has registered his certificate, in all transactions involving it. In case of an unregistered certificate he can deal with any postoffice or duly authorized war savings stamp agent.

In addition to this plan of putting away savings by the purchase of the \$5 stamps, the Government has also provided United States Thrift Stamps, costing 25 cents, to make it possible to accumulate War Savings Stamps on the installment plan. The purchasers of these thrift stamps are also furnished free thrift cards, on which there are spaces for sixteen stamps. It will cost the purchaser \$4 to fill the card. When this card is filled he may, by the addition of 12 cents in January or thirteen cents in February, or of whatever amount may be the difference at the time between \$4 and the monthly purchase price of the War Savings Stamps, convert it into a full War Savings Stamp to be placed in his War Savings Certificate.

War Savings Certificate Stamps will be issued in 1918 at the following prices:

| | | | |
|----------|-------------|-----------|-------------|
| January |\$4.12 | July |\$4.18 |
| February |4.13 | August |4.19 |
| March |4.14 | September |4.20 |
| April |4.15 | October |4.21 |
| May |4.16 | November |4.22 |
| June |4.17 | December |4.23 |

The prices at which the owner may redeem his War Savings Certificates after January 2, 1918, and before January 1, 1923, for each stamp on it, is shown in the following table:

| Month. | 1918. | 1919. | 1920. | 1921. | 1922. |
|-----------|-------------|--------|--------|--------|--------|
| January |\$4.12 | \$4.24 | \$4.36 | \$4.48 | \$4.60 |
| February |4.13 | 4.25 | 4.37 | 4.49 | 4.61 |
| March |4.14 | 4.26 | 4.38 | 4.50 | 4.62 |
| April |4.15 | 4.27 | 4.39 | 4.51 | 4.63 |
| May |4.16 | 4.28 | 4.40 | 4.52 | 4.64 |
| June |4.17 | 4.29 | 4.41 | 4.53 | 4.65 |
| July |4.18 | 4.30 | 4.42 | 4.54 | 4.66 |
| August |4.19 | 4.31 | 4.43 | 4.55 | 4.67 |
| September |4.20 | 4.32 | 4.44 | 4.56 | 4.68 |
| October |4.21 | 4.33 | 4.45 | 4.57 | 4.69 |
| November |4.22 | 4.34 | 4.46 | 4.58 | 4.70 |
| December |4.23 | 4.35 | 4.47 | 4.59 | 4.71 |

January 1, 1923, \$5.00.

The work of organizing and promoting the advertising, sale and distribution of the War Savings Stamps has been placed by Secretary of the Treasury McAdoo in the hands of the National War Savings Committee, of which the members are Frank A. Vanderlip, chairman; Charles L. Baine, Mrs. George Bass, Frederick A. Delano, Henry Ford and Eugene Meyer, Jr. From all parts of the United States men of large business interests and experience have been called to organize and carry on the work of the various departments under this committee, unselfishly laying down their own affairs and sacrificing their own business to assist the Government in its conduct of the war.

The country has been divided into six Federal districts for the campaign, each district in most cases consisting of two Federal Reserve Bank districts, and State directors have been appointed in turn for each State within the districts, serving under the direction of the Federal directors. These State directors have full charge of the campaign by cities, towns and counties, so that no part of the country shall be without active workers.

In addition to this special organization, Postmaster-General Burleson has converted the whole postoffice system into a selling force for the distribution of the stamps, instructing all postal employees, from postmasters down, to take an active part in the campaign as a part of their official duty.

On the List for Life.

JOHN G. WESTERMAN, Sr. & Jr., Mines and Mining, Woodstock, Ga.

Enclosed find postoffice money order to cover a subscription for another year. Your editorials are worth many times the subscription price. As long as we live we expect to be found on the mailing list of the MANUFACTURERS RECORD.

We feel that every true, patriotic American business and professional man and woman who will carefully read the MANUFACTURERS RECORD will be the better off for so doing.

The Nation's Nitrate Needs Compel Rapid Movements for Building Great Plant

[Special Correspondence Manufacturers Record.]

Florence, Ala., December 3.

The officers of the American Cyanamid Co., who have offered their services to the Government free of charge in the construction of a great nitrate plant at Muscle Shoals, have just spent a week at this point, and have recommended that work on the plant begin at once.

Two thousand two hundred acres of land lying at the foot of Muscle Shoals and at the end of the Florence River bridge at South Florence has been selected as the most desirable site, and options have been secured on practically all of the land. The work of laying railway side-tracks has been under way for a week. Several thousand feet have been laid, and the work of laying more track is being rushed.

It is stated that the great plant is to cost \$30,000,000 and that it is entirely independent of the experimental plant now being built at Muscle Shoals, and that this is outside of the cost of the building of the great dam, etc.

It is said that when the Government discovered that there was but little nitrate in the country and that great quantities must be had, the situation was viewed with alarm. The officers and engineers of the American Cyanamid Co. were called upon for help, and at once showed their patriotism by volunteering to help in every way possible, giving their services free of charge in assisting in the building of a great nitrate plant and giving the Government the use of their valuable information, which has been secured through experience and at great expense.

It is stated that while the great dam is being built, and as soon as the nitrate plant is ready for operation, power to the extent of 30,000 horse-power will be secured from the Alabama Power Co., and that a steam plant to be erected on the site will also furnish 30,000 horse-power.

The entire plant will be so constructed that the power from the Muscle Shoals hydro-electric development may be used as soon as it is ready.

The statement has been made that the great plant will be rushed to completion and that by the first of July munitions from the nitrate will be on the way to France for the use of American soldiers.

Plans have been made for the building at South Florence of enough houses during the next two months to house 2000 people. Carpenters are coming on every train, as are skilled mechanics.

The site selected is especially desirable. It lies about 100 feet above the waters of the beautiful Tennessee and has perfect drainage. Railroads extending to the north, south, east and west pass through it, and river transportation may be had to all points down the Tennessee and points on the Ohio and Mississippi rivers.

The Nitrate Situation as Viewed by the War Department.

Washington, D. C., November 30—[Special.]—Frank S. Washburn, president of the American Cyanamid Co., will be the chief adviser of the Government in the construction of the great nitrate plant at Muscle Shoals, which the War Department finally has decided to build.

Secretary Baker of the War Department has finally given his approval to the construction of the nitrate plant at Muscle Shoals. General Crozier, chief of the Ordnance Department, was largely responsible for the decision to follow the original plan of Congress and build a great plant for the manufacture of nitrates from the air. General Crozier felt that the experimental plant which the Interdepartmental Board had decided to build at Muscle Shoals would not solve the problem involved in the shortage of ammonia nitrates, and that the only relief obtainable was from quick action in the construction of a plant that would manufacture under one of the well-established processes.

Estimates of the total cost of the plant are likely to prove inadequate. The amount of money actually available is \$16,000,000, but it is probable that the cost of the plant will exceed this amount. Congress appropri-

ated \$20,000,000 for the nitrate plant, but \$4,000,000 of it has been set aside for the experimental plant.

It is probable that as the result of the development of the enormous nitrate business at Muscle Shoals there will be busy times in all the surrounding territory. Once the work is under way it is probably that Congress will be asked for an additional appropriation to take care of housing operations for the convenience of workmen, etc.

The Vital Necessity of Prompt Action in Building Nitrate Plant.

[From MANUFACTURERS RECORD November 23, 1916.]

The high hopes that have been held out from time to time that available deposits of nitrates have been found in the United States equal to its demands for fertilizers and explosives have been effectually dissipated in an official announcement of the United States Geological Survey just issued.

There can be no getting behind the authoritative statement mentioned, as the Geological Survey has examined every nitrate deposit known in the country and has found all of them practically worthless for commercial utilization.

The immediate object of the Survey's report is to warn investors and explorers against almost certain loss that will follow any attempts to make the small percentage of nitrate salts found here and there in the fissures of the rocks or combined with the soils in numerous sections of commercial value.

Far more important, however, is the bearing which the report has on the necessity for developing on a large scale the essential means for obtaining nitric acid from the air through the erection of nitric-acid plants for the fixation of atmospheric nitrogen.

As the situation now stands, the entire problem has been divested of the uncertainties which surrounded it as long as the probability, or even the possibility, of obtaining nitrates from natural deposits in the United States held any place. The announcement of the Geological Survey, based on careful and painstaking tests at every point where evidences of nitrates were present in the soil, places the nation face to face with the urgent requirement that nitric acid be obtained from the air through the immediate erection of the necessary plants, if this country is to be kept free from disastrous consequences either in peace or at war.

With the entire world depending upon the nitrate deposits of Chile until shortly before the opening of the struggle in Europe, it can readily be seen where Germany would have been had not that nation in its wisdom already developed its methods for fixing the nitrogen of the air before the actual clash occurred. As it is, although cut off by England's control of the seas from recourse to Chile, Germany has been able to make her nitric acid necessary to the high explosives demanded by continuous warfare, and also to manufacture the fertilizers necessary to preserving the fertility of her lands.

Unless the United States acts promptly with equal wisdom there can be no telling what fate might befall us. Whatever the source of possible danger, the control of the sea is not ours. Dependence for the first necessities of protection in plans for adequate preparedness upon sources that lie entirely without our boundaries becomes foolhardiness to the point of criminality for which no other measures can make amends.

The Government having already appropriated \$20,000,000 for the erection of a plant for manufacturing nitrates for war explosives and fertilizers, the site for the plant becomes of the first consideration. With no chance of obtaining nitrates from the soil, there should immediately be selected a site for this plant with reference to available water-power, cheapness of production and its immunity to capture by an invading force.

Unquestionably the situation presented by Muscle Shoals covers to the full these several requirements. Entirely aside from the appropriation for the Government nitrate plant, and, in fact, before such legislation had been contemplated, the engineers of the army had passed upon Muscle Shoals as the best water-power site

in the United States, not excepting Niagara Falls, and had recommended its development by the Government.

Here, then, is pressing need for action that should involve neither politics nor partisan consideration. Such can have no place in a situation where the welfare of the entire country is involved. Already has the country suffered from a fertilizer shortage due to the war demands of other nations, which has also had its effects in the falling off of crop yields. Much more than half of the fertilizers annually used are used in the Southern States. The cotton so essential to the manufacture of high explosives is raised there. The water-power at Muscle Shoals has a possible development of 680,000 horse-power. Looked at from any point of view, is there any other location in the entire country possessing the logical claims for consideration that approach those presented by Muscle Shoals as a site for the Government nitrate plant? The exercise of sound business judgment, a knowledge of economic requirements and an impartial patriotic conception of the country's needs can join in but one inevitable answer.

[And now, after a year of wasted time, the Government is rushing with feverish haste to do exactly what it was perfectly clear a year ago should have been done then. Not now, but some day, the country should be told the actual facts as to the need of nitrates and the costliness from many points of view of this wholly unnecessary delay. In repeating this editorial from our issue of November 23, 1916, we do so merely to emphasize the folly of the delay, though the danger of that folly cannot now be wisely told.—Editor MANUFACTURERS RECORD.]

Food Conservation at a Hotel.

Apropos of the editorial, "Hotels and Clubs Must Be Made to Stop Food Waste," which appeared in the MANUFACTURERS RECORD November 22, C. F. Cushman, manager of the municipal and corporation bond department of the New York Life Insurance Co., New York, sends this newspaper several menu cards from Young's Hotel, Boston, showing what it is already doing for the conservation of food supplies. Attached to two of the cards is this notice concerning Tuesdays and Fridays, which have been established by the Board of Food Administration of Massachusetts as regular fish days:

"Certain meats will be served if guests insist, but by abstaining from meats of all kinds guests will show their appreciation of our troops abroad, and thereby materially assist the Government in the conservation of food."

An excellent feature of the menu is that there are numerous half portions, so that guests may obtain just about the quantities they desire and at a less cost. Moreover, rolls of all kinds are priced at 5 cents each, so that they may be bought singly if preferred. Mr. Cushman remarks that this arrangement of prices was adopted long before the war, and that other hostilities might adopt it with advantage to themselves and their patrons, as well as to the furtherance of food conservation.

The Curse of the Cur Dog.

Asheville, N. C., December 1—[Special.]—The Asheville Board of Trade has for some time conducted a campaign against the worthless hound dog and the promotion of sheep raising. As an indication of some of the discouragements encountered, a letter from a clerk of the Superior Court in a North Carolina county has been exhibited. In reply to a question as to sheep in his territory, the court clerk said that he owns twelve hounds, and would not give them for all the sheep in his county. The official who received the letter dryly said that the writer could not qualify even for entrance examination into the State School for the Feeble-Minded.

A hound dog will eat as much on an average as an able-bodied workman, and three times as much if he can get hold of it. When Secretary Buckner of the Asheville Board of Trade was asked how many dogs he thought there were in his county of Buncombe, he replied: "I think it is safe to say that there are twelve thousand dogs in the county, this being an average of one to a family. I think it equally safe to say that if ninety-nine out of every hundred dogs were killed, it would make Buncombe county a much better place to live and thrive in."

400,000 Tons of Baltimore Ships Estimated Production for 1918

Baltimore shipyards will within the next year turn out ships totaling more than 400,000 tons, and with the additional tonnage of various plants located on tributaries of the bay and Patapsco River nearby the amount will be increased considerably. Already the yards have more than 350,000 tons of ships contracted for, all of which is to be delivered within a year. Many of the ships are now ready to leave the ways, and as soon as they do keels for new ships will be laid.

To make the program a success, officials say all that is needed now is an assurance of enough skilled men to operate the plants; 8000 men are now employed, and from figures furnished by the plants this number will have to be doubled in order to enable the plants to operate at 100 per cent. efficiency. As it is now, many of the largest plants are operating at about 50 per cent.

The new men will not all be employed at once. The increase will be gradual and extend far into next summer. It is believed that men skilled in other lines of iron and steel work not essential to war work can be secured, and after special training under the direction of the present force of skilled men can be made of invaluable service to the shipbuilding industry. It is not desired that men should be shifted from one plant to another in the section, or even brought from other sections. The officials believe that the men now employed as shipbuilders should remain where they are, and that new men should be placed in the vacancies.

The supply of materials for both wood and steel ships was for a time threatened, but now things have been righted and no further trouble along these lines is feared.

At least one-third of the tonnage called for in contracts is now on the ways, and within the next month thousands of tons will be added. It will be seen by table herewith that practically all of the small plants have on the ways most of the ships contracted for. The larger plants, however, are building a few ships at a time on the ways, but at the same time work of all kinds is being rushed on the other ships in the yards. The Baltimore Dry Docks & Ship Building Co. has two

ships of 6200 tons on the ways and also three ships of 2500 tons each, while progress is being made on the remaining 18 ships. Before January four additional ways for ships of 8800 tons will be completed, and work of building ships on them will begin immediately. This alone will add 35,200 tons of construction work to the plant's total. During the past year seven vessels have been launched, totaling 37,400 tons; five were of 5000 tons each and two of 6200 tons each. Similarly, at the Bethlehem Steel Co. plant seven ships are on the building berths, one is overboard and work is proceeding in the shops on four others. This concern believes that within a year it can turn out ships having a total dead-weight of 150,000 tons. This year seven vessels, totaling 71,000 tons, were launched. The Coastwise Shipbuilding Co. has six berths occupied, but several of the ships are fast nearing completion, and as soon as they are overboard keels for new vessels will be laid. The Riter-Conley Company has just launched one vessel, and will begin a new ship on the ways.

On August 1, 1916, there were a total of 40 steel vessels building at plants on the Chesapeake Bay and Patapsco River. They totalled 111,086 tons. This included 16 vessels at the plant of the Newport News Shipbuilding & Dry-Docks Co., so that there were 24 steel ships building in Baltimore yards. Today work is proceeding on 39 steel ships and 36 wooden vessels. The steel vessels total more than 275,000 tons.

During the past year a total of more than 120,000 tons of ships have been launched from the plants named, besides additional tonnage from other nearby plants, and before January 1 this amount will be considerably augmented.

In the following table the shipbuilding plants of Baltimore district are enumerated, with the tonnage and number of ships under contract, the tonnage on the ways, the number of employees now at work, and the estimated number of those required to bring the plant's capacity up to 100 per cent. These figures have been obtained from official sources in all except one instance, where definite information has not been forthcoming:

WOOD SHIPBUILDING PLANTS.

| | No. ship contracts. | Tonnage contract. | Ships on ways. | Tonnage on ways. | Employees. | Additional employees needed. |
|--------------------------------|---------------------|-------------------|----------------|------------------|------------|------------------------------|
| J. Henry Smith & Sons Co..... | 8 | 28,000 | 4 | 14,000 | 200 | 200 |
| H. E. Crook Co., Inc..... | 6 | 8,400 | 3 | 4,200 | 180 | ... |
| Coastwise Shipbuilding Co..... | 10 | 16,000 | 6 | 8,000 | 300 | 75 |
| Arundel Shipbuilding Co..... | 6 | 12,000 | 2 | 4,000 | 200 | 200 |
| Maryland Shipbuilding Co..... | 6 | 21,000 | 2 | 7,000 | 150 | 600 |

STEEL SHIPBUILDING PLANTS.

| | | | | | | |
|--|----|---------|----|---------|------|------|
| Baltimore Dry Docks & Shipbuilding Co..... | 23 | 152,300 | 5 | 19,900 | 3500 | 2500 |
| Bethlehem Steel Co..... | 12 | 114,200 | 7 | 62,850 | 4000 | 4000 |
| Riter-Conley Co..... | 4 | 12,000* | 4 | 12,000* | 500 | ... |
| Total..... | 75 | 363,950 | 33 | 132,000 | 8900 | 7575 |

*Estimated.

150,000 TONS OF SHIPS MAY BE YEARLY OUTPUT.

Bethlehem Company's Yards at Sparrows Point Rushing Work on Great Building Program.

Work on twelve all-steel ships is being rushed at the Sparrows Point plant of the Bethlehem Steel Co., having a total dead weight tonnage of 114,200 tons and ranging in size from 6000 to 17,000 tons. One of the twelve ships will be completed within two weeks, and at least one-half will be completed by July 1, 1918, so that the plant will be able to take care of construction of additional ships. It is hoped that at least 150,000 tons of ships may be completed within a year. During the year 1917, according to estimates made last week, seven vessels totaling 71,000 tons dead weight will have been completed, making a record for construction at the plant.

Of the twelve ships now contracted for, one is already overboard, seven are on the building berths, and four have been started, work now proceeding in the mold lofts and fabricating shop on these vessels. A vessel of 17,000 tons, the largest vessel ever constructed at the plant, is now being built. Work on the greater number of ships was started during June, 1917, so that they are now in various stages of construction and will leave the berths at frequent intervals. Among

the ships are four ore carriers for the Bethlehem Steel Corporation, six freight ships ordered originally for the Cunard lines, one tanker for the American Petroleum Co., one freight ship for the Bethlehem Steel Corporation. All of these vessels have been requisitioned by the United States Shipping Board, but the four ore carriers have been released for the use of the steel company to enable it to make certain the supply of ores for its plant. One tug is also under construction.

An extensive building program, which extended over a considerable period of time, has about been completed, and will greatly increase the size and capacity of the plant. Just recently a building berth providing for vessels up to 650 feet in length has been completed, thus making conveniences for constructing vessels of a larger size than have ever been built in the Baltimore section. A large machine shop equipped with the latest and most improved machinery has been completed. A new fabricating shop of large dimensions enables the plant to greatly increase its output. A drydock of sufficient size to take care of a ship of 20,000 tons is included in the program and will shortly be placed in use. Two piers of wood and concrete construction and each 1200 feet long have been completed. Tracks are now being laid on them, and a 20-ton hammer-head crane is being placed for use in handling materials. Ships that are undergoing repairs and being fitted with equipment will be tied up at the piers.

Practically all of the work was carried on under the direction of the company's engineers. The buildings are all built on the daylight plan, providing for plenty of light and good ventilation, and are entirely fireproof, being of steel, brick and concrete construction.

There are now employed at the plant about 4200 men, and this number will be increased during 1918 to 8000 men, so there must be an increase of 3800 men. The plant is now of sufficient size to necessitate employing this number of men.

Although the construction of additional berths has been under consideration, nothing definite along these lines has been announced, since the plant is awaiting the action of the Government pending the completion of work on present contracts. There is, however, sufficient space to enable the construction of eight additional berths, which would raise the number to more than double the present berth capacity.

First Ship Launched by Riter-Conley Company at Fairfield.

On Saturday, November 24, the first steel ship to be completed at the new plant of the Riter-Conley Company at Fairfield, Md., subsidiary of the Riter-Conely Manufacturing Co. of Pittsburgh, left the ways. It was the oil tank barge Monongahela for the Gulf Refining Co. of Port Arthur, Tex. Another similar barge for the same concern will soon be launched. Two ways providing for vessels of upwards of 400 feet in length are now about complete, and work will shortly commence on two auxiliary steel schooners for the Aluminum Company of America. Each vessel will be 350 feet long, 50 feet wide and 24.6 feet deep. Besides having twin engines generating 500 horse-power each, the schooners will be fitted with sails so that long voyages may be made with the least possible cost of operation. There will be six masts, with fore-and-aft sails. The vessels, including even the masts, will be entirely of steel construction.

Keels Laid for Wooden Vessels at Maryland Shipbuilding Co.'s Plant.

The new plant of the Maryland Shipbuilding Co., at Sollers, on which construction work was started in June, 1916, is 90 per cent. complete. Four building ways have been finished and keels have been placed on two, while work is proceeding in the mold loft at considerable speed. The tract owned by the company consists of about 35 acres, having upwards of 3000 feet of waterfront. It is situated north of the lines of the United Railways Co.

Practically all of the buildings comprising the plant are now complete, and work is proceeding rapidly on the remainder. The plant is up to date and modern for building all-wooden ships. The buildings are all of frame construction. The machinery is operated by electric power furnished by the Consolidated Gas, Electric Light & Power Co.

All the boats built at the plant will be for the Emergency Fleet Corporation, the concern having received a contract for six vessels of the Ferris type, similar to the standard wooden vessels being built at the various shipyards throughout the country. Already 150 men are at work, and this number will be increased to upwards of 750 men when the plant is working at full capacity.

Steel Company Increases Land Holdings at Mobile.

[Special Dispatch to Manufacturers Record.]

Mobile, Ala., December 4.

The Tennessee Land Co., subsidiary of the United States Steel Corporation, today acquired an additional 896 acres of land for its shipyard site, making the total holdings here 12,396 acres. The consideration was \$84,000, and the purchase was made from Clarke-Mengher interests.

Dr. Lloyd Noland, sanitary expert of the Chickasaw company, announced today that the site will be freed of mosquitos within six months.

Within a week 2000 more laborers will be put to work on the site.

\$30,000,000 Worth of Ships Under Contract by Baltimore Concern

NEW \$4,000,000 PLANT OF BALTIMORE DRY DOCKS AND SHIPBUILDING COMPANY, BUILT PRIMARILY FOR GOVERNMENT SERVICE, TO BE IN FULL OPERATION SOON.

One of the more important recent developments demonstrating the rank of Baltimore as a shipbuilding and manufacturing center is the new \$4,000,000 South plant of the Baltimore Dry Docks & Ship Building Co., located on the south side of Fort avenue and west of old Fort McHenry. In the vicinity are the plants of the Coastwise Shipbuilding Co. and H. E. Crook, Inc., which are now building wooden vessels.

The South plant, while built primarily for the use of the Emergency Fleet Corporation of the United States Government, is a permanent improvement and a lasting tribute to the importance of the port of Baltimore. To the men at the head of the Baltimore Dry Docks & Ship Building Co. much credit is given for the character of the improvement. While it may not be as large as other plants, it is not surpassed by any in its completeness, arrangements and facilities for turning out finished work quickly and efficiently.

Starting on July 6, 1917, when the first pile was driven by the Raymond Concrete Pile Co. for the foundations of the launching ways, there has risen since that time a new shipbuilding plant with four permanent ways, capable of turning out twelve 8800-ton ships per annum, the size of the first order by the Government. This is in addition to the facilities provided by the two older plants of the concern.

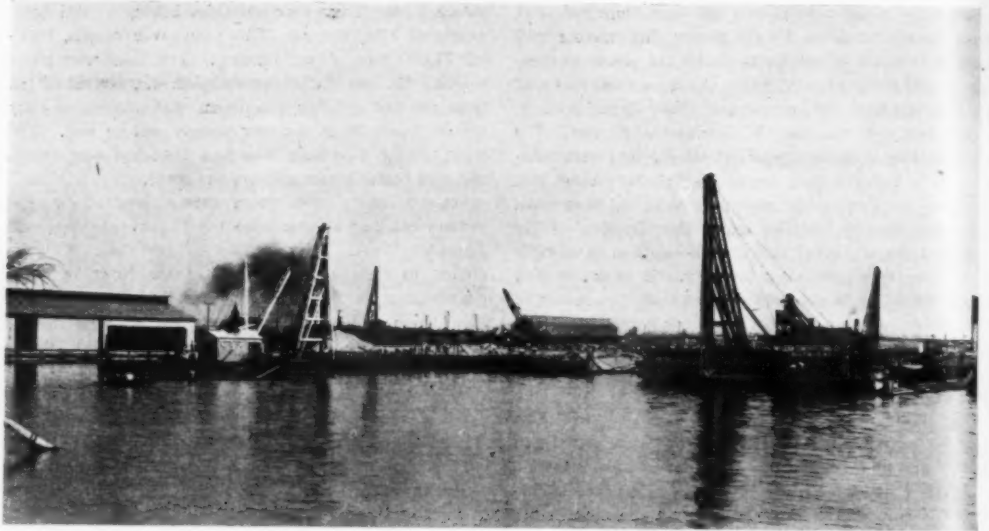
The plant is laid out for continuous handling of raw material through the layout shop, fabricating shop, assembly shop, until placed in position in the hulls of the vessels under construction on the launching ways.

Material is unloaded and distributed into permanent concrete and steel racks by locomotive cranes, having booms 77 feet long. The yards are the entire width of the tract and extend to the main building of the plant. From the material yard the material is taken to the main ship shop, known as building No. 4. This building is divided into three sections; first, the layout shop, a building 80x400 feet, above which is the mold loft, and in which the plates and shapes are marked and laid out ready for the machines; in the second division of the building, 100x400 feet, are located the Lysholm tables,

with their punches, the shears, bending rolls and other tools necessary to punching and shaping the plates and sections before they are delivered to the assembly shop; in the third section is the assembly shop, 80x400 feet, where the materials are assembled and bolted together as far as it may be before being placed in the hull. Run-

and two ways 60 feet wide and 500 feet long. The launching ways are of massive concrete construction, built with a view to future extension, to take care of even larger ships than those to be built now. Under the present plans officials of the company say that it will be possible to build ships of 15,000 tons each without any strengthening of the present ways. They rest on 3000 concrete piles, each of which is capable of safely bearing a load of 27 tons.

Besides the ship shops and ways already mentioned, there has been constructed a three-story office building, 50 feet wide and 150 feet long, located on Fort avenue adjoining the fort; a storehouse, 50 feet wide and 200 feet long, entirely fireproof and built without a piece of wood, and a heating plant, 42 feet wide and 70 feet long, all of brick and concrete construction. The other buildings include a boiler shop, 110 feet wide and 340 feet



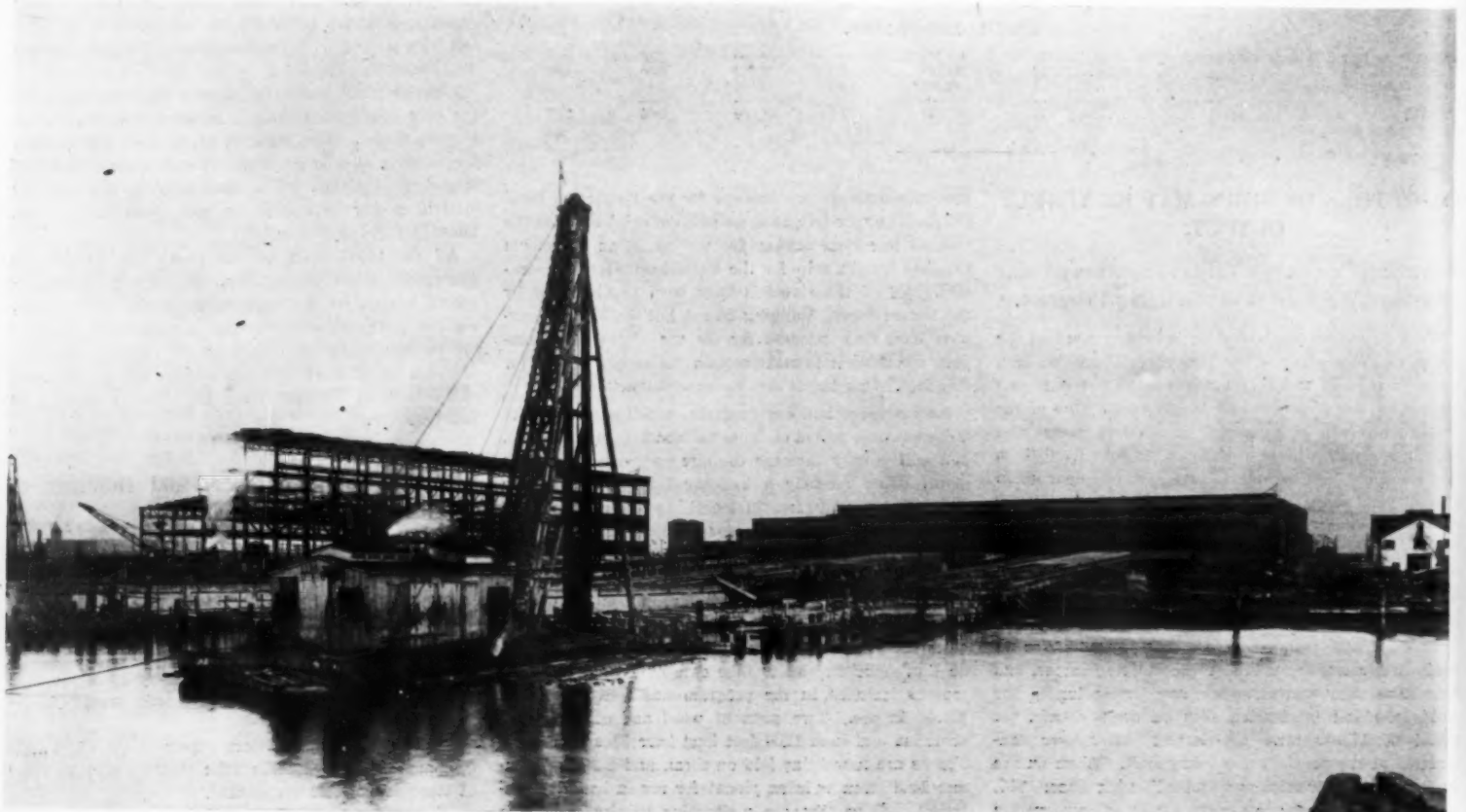
PROGRESS PICTURE OF BALTIMORE DRY DOCKS & SHIPBUILDING CO. PLANT, TAKEN ONE MONTH AFTER OPERATIONS WERE STARTED, SHOWING ACTIVITY ON WATERFRONT IMPROVEMENT, INCLUDING WORK ON BULKHEAD, PIERS AND WAYS.

ning parallel with the layout shop and across its entire face is a gantry crane, which picks the finished products from the various tracks as it is sent out of the shops and places it at the head of the craneways leading to the ways. There are three craneways, each having two 77-foot radius tower cranes, which pick up the material and lay it in the hull on the launching ways.

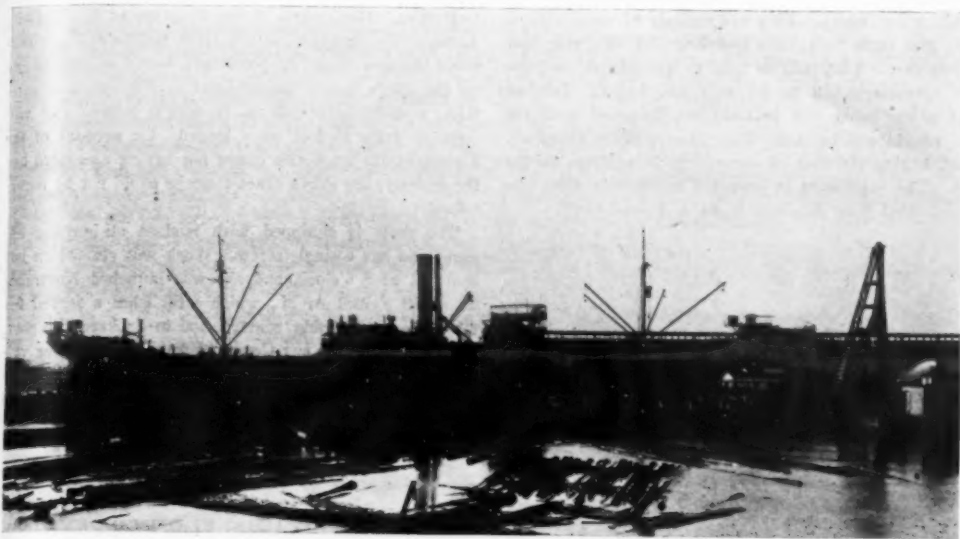
There are two ways 70 feet wide and 500 feet long,

long; carpenter shop and fitting-up shop, 70 feet wide and 400 feet long; a two-story paint shop, 50 feet wide and 50 feet long, all of structural steel construction, with Asbestos Protected Metal siding and Fenestra Steel sash.

As it is planned to completely fit all ships built at the plant and to make all the heavy fittings with the exception of the engine and turbine, it was necessary to



PROGRESS PICTURE OF BALTIMORE DRY DOCKS & SHIPBUILDING CO. PLANT, TAKEN NOVEMBER 23, SHOWING WAYS UNDER CONSTRUCTION, MAIN BUILDING IN CENTER AND GENERAL SHOPS BUILDING ON THE LEFT.



WATERFRONT IMPROVEMENTS OF BALTIMORE DRY DOCKS & SHIPBUILDING CO.

erect a complete boiler shop. It is divided into two sections; first, the heavy boiler shop, a building 50 feet wide and 340 feet long, with the bottom of the crane girders 70 feet above the level of the floor, and here all the work of fabricating and shaping the heavier types of marine boilers will be done, taking the material from the yards and turning out a complete marine boiler; second, the lighter boiler shop, 60 feet wide and 340 feet long, in which will be made the stacks, breeching, draft funnels and the lighter class of plate work. Some idea of the work to be undertaken in the main boiler shop may be obtained from the fact that two 50-ton cranes are provided for handling materials in this building, while in the smaller shop there are two cranes of 15 tons each.

To provide necessary pressure for the hydraulic tools in the boiler shops there has been installed in the power-house a hydraulic accumulator of sufficient capacity to give 700 pounds pressure per square inch. Current will be supplied by the Consolidated Gas, Electric Light & Power Co., and the power-house will house the transformers and switchboards necessary for the plant.

A two-story structure 70 feet wide and 400 feet long will house the carpenter shop, joiner shop, varnish shop and fitting-up shops. Here the interior trim for the hulls are made. On the east side of the shop, and at the end of the pier, is a stiff-leg derrick, capable of lifting 85 tons at a radius of 60 feet, which will be used

in placing the boilers and engines in the vessels. On the west side of this building is a tower crane, similar to those on the crane ways between the launching ways. It operates on a track 1400 feet in length, extending



BALTIMORE DRY DOCKS & SHIPBUILDING CO. PLANT, SHOWING MAIN BUILDING AND STORAGE-YARD AND CONCRETE PIERS FOR RECEIVING MATERIALS.

from the bulkhead at the head of the slip on the west side of the pier to the pier head line of the harbor.

After being launched a vessel will be moved to the west

side of the pier, where the lighter plate work and masts, etc., will be installed by the tower crane.

Since the plant is to be operated entirely by individually motor-driven machinery, requiring 4500 kilowatts, and since practically all of the material to be used is steel, all wiring has been placed underground. There are in the plant more than 15 miles of duct line, besides many miles of water, air, oil, heating and sewer lines.

With the opening of the entire plant, about January 1, construction of ships will be well under way. Three spurs from the Baltimore & Ohio Railroad will enter the tract, which is of about 25 acres.

The company, Baltimore Dry Docks & Ship Building Co., now has three plants, one on the Key Highway, a second north of Fort avenue and the third the plant now under construction. At the old plants three mine sweepers for the United States Navy are being built, on which good progress has been made, and work on a contract for eleven 6200-ton steel freighters, two of which have already been launched and two of which are now on the ways. The upper dock has a length on keel blocks of 610 feet and a width of 62 feet on floor, and the lower dock is 437 feet long and 52 feet wide. It was announced that the new ships under contract for construction will have a total valuation of \$30,000,000.

In addition to the contracts for new ships, the company is also doing considerable repair work, for which



RITER-CONLEY COMPANY, FAIRFIELD, MD.

Two oil-tank barges for Gulf Refining Co. of Port Arthur, Tex. A completed ship, the Monongahela, was launched on November 24, and a sister ship will shortly leave the ways.

its upper plant is specially suited. Extensive rebuilding and re-equipping is now under way, and the working capacity of the plant will be greatly increased. Just now about 3500 men are employed, and it is planned to increase this number to 6000 shortly after the first of the coming year.

The officers of the company are: President, Holden A. Evans; vice-president, Clement C. Smith; vice-president and general manager, J. M. Willis; treasurer, George Allison; secretary, Edwin W. Poe.

Associated with Mr. Evans in the design of the plant are J. M. Willis, general manager; H. G. Crosby, naval architect; Raymond Concrete Pile Co., designer of the ways and concrete structures; Day & Zimmerman, utilities; Otto G. Simonson, architect, and F. W. Kassebaum, Jr., engineer in charge for the company.

The contractors who have had charge of the various classes of work are: Raymond Concrete Pile Co., Baltimore, New York and Chicago, foundation for steel buildings and machinery and construction of ways; West Construction Co., Baltimore, Md., constructing brick buildings; Belmont Iron Works, Philadelphia, Pa., contractor for structural steel work; Andrae & Co., Baltimore, air lines and heating plant; George W. Walther, installation of sewer system and water mains; L. K. Comstock & Co., New York, electrical work; Detroit Steel Products Co., Chicago.

Six Wooden Barges Being Built by Baltimore Plant.

Work is being rushed on a contract for six wooden barges by the H. E. Crook Company, Inc., with offices at 28 Light street, Baltimore, and whose plant is situated on the Patapsco River adjoining the Coastwise Shipbuilding Co. plant south of Fort avenue. The plant was purchased from the McLean Contracting Co., and the new owners began work last July. They are meet-

ing with much success in their new venture. The plant is being improved by the erection of a large frame warehouse on the old pier, which is 500 feet long, and a machine shop has just been completed and equipped with up-to-date machinery. About 180 men are now employed, working on one shift.

The boats are being built for the Northern Transportation Co., 610 Munsey Building, Baltimore. Three are now on the ways, one of which will be launched

within a few weeks. They are entirely of wood and of 1400 tons each, being 200 feet long, 30 feet wide and 14 feet deep. They will be used as tow barges, and the only machinery will be for sails and hoists. Just as soon as the boats now building are launched keels for new vessels will be laid. The plant tract is about six acres, having 200 feet of waterfront in addition to the pier. The machinery is operated by current from the Consolidated Gas, Electric Light & Power Co.



PLANT OF H. E. CROOK COMPANY, INC., ON THE PATAPSCO RIVER, SHOWING TWO BARGES OF 1400 TONS EACH UNDER CONSTRUCTION AND PART OF PLANT.

\$20,000,000 Contract for Ships Given to Charleston Plant

EMERGENCY FLEET CORPORATION AUTHORIZES CONSTRUCTION OF SIXTEEN STEEL SHIPS, 7,500 TONS EACH, BY SOUTHERN SHIPBUILDING CORPORATION—STEEL TO BE FURNISHED BY BIRMINGHAM PLANT.

[Special Correspondence Manufacturers Record.]

Charleston, S. C., November 30.

Announcement is made of the signing of a contract by the Emergency Fleet Corporation of the United States Shipping Board with the Southern Shipbuilding Corporation, whereby the Southern Shipbuilding Corporation will immediately begin the construction of fabricated steel ships of an altogether new type at Charleston, S. C. The amount involved in the initial contract is \$20,000,000. The Southern Shipbuilding Corporation, which is financed principally by Eastern capitalists, will begin to construct its shipyard at Charleston without delay.

The new company will build steel freighters of 7,500 tons each. They will be of a fabricated type designed by H. Newton Whittelsey of New York, who is the president of the company. Material will be fabricated for the present in the Birmingham district and brought to Charleston by rail. Later the company expects to build a fabricating plant at Charleston.

The 7500-ton ship which Mr. Whittelsey has designed and patented is said to be such that it can be built more quickly and more cheaply than any other steel ship of the same size; so cheaply, in fact, that the Whittelseys are confident that after the war, if American orders are not enough to keep their plant busy, they can go into the foreign market and compete for orders against cheap labor.

One feature of the new ship is that principally semi-skilled labor can be employed in construction work, and accordingly one of the most difficult current problems of shipbuilding will not hamper the Southern Shipbuilding Corporation.

After very careful consideration, Admiral Washington Capps and other members of the Emergency Fleet Corporation have approved the Whittelsey plans and the Shipping Board has now given the contract for the immediate construction of sixteen vessels.

It is understood that the company will employ between 3000 and 4000 men and that the number will be increased to 7000.

Charleston Shipyard May Require Additional Steel Plants at Birmingham.

Birmingham, Ala., December 3—[Special.]—Announcement of the great development proposed at Fairfield and Ensley by the Tennessee Coal, Iron & Rail-

road Company, and at Mobile by the Chicasaw Shipbuilding Company, subsidiary organizations of the United States Steel Corporation, in which many millions of dollars will be expended, are followed this week with the announcements that steel shapes will be fabricated in Birmingham at works already in existence or to be established for shipbuilding at Charleston, S. C., by the Southern Shipbuilding Corporation, which concern has received a contract from the United States Shipping Board for sixteen 7500 deadweight tons of steel cargo ships of the Whittelsey panel type, and which will cost upwards of \$20,000,000. Birmingham interests are identified with the shipbuilding company whose plant is to be placed at Charleston and it is given out that one or two additional plants may be erected here at once, the one plant now up being able to supply only a small part of the steel that will be needed. Full plans of this arrangement may be given out this week.

The organization of the Southern Shipbuilding Corporation was announced in the MANUFACTURERS RECORD some weeks ago as follows:

"H. N. Whittelsey, Prest., 17 Battery Pl.; W. E. Allen, V.-P.; J. L. Dudley, Treas.; Jas. Mitchell (Prest. of Alabama Power Co.), Chrmn. Directors; all of New York; authorized capital is 100,000 shares without par value; issued \$250,000 bonds. Approximate cost of Charleston plant complete \$3,000,000. Yearly capacity 250,000 tons."

A dispatch to the MANUFACTURERS RECORD from the Southern Shipbuilding Corporation's headquarters in New York states, in addition to confirmation of the foregoing correspondence from Charleston and Birmingham, that a Birmingham company is to fabricate all ship steel and also build engines for the ships named.—Editor MANUFACTURERS RECORD.

LAUNCHED IN FIVE MONTHS.

New Shipyard Under Construction.

Jacksonville, Fla., November 30—[Special.]—After being under construction only five months and five days, the big steel tanker "Mohawk," built for the Gulf Refining Co. by the Merrill-Stevens Company in Jacksonville, was launched Tuesday morning amid the usual

festivities. Miss Marie Hyde, daughter of F. J. Hyde, Jacksonville manager of the Gulf Refining Co., christened the new vessel by bursting a bottle of champagne on the ship's bow. The Mohawk is 153 feet in length, with a moldhead depth of 12 feet 6 inches, and will possibly draw 10 feet when loaded. On account of the United States inspection officer not having measured her for registry, the ship's exact tonnage could not be ascertained.

The craft is equipped with modern oil-burning engines and has a single screw. Work was started on her June 21 at 8 o'clock, and she was launched November 27 at 10 o'clock A. M., which establishes a record for steel and wooden-ship construction in Jacksonville port.

The Merrill-Stevens Company has several other vessels under construction, and recently purchased an additional 1000 acres of land, where their new \$500,000 shipyards are being constructed to take care of contemplated enlargements.

\$1,000,000 SHIPYARDS FOR FERNANDINA.

Philadelphia Capitalists Plan Facilities for Building Composite and Steel Ships.

Details are being determined for the shipyards which the Fernandina (Fla.) Shipbuilding & Dry Dock Co. will build in accordance with a previous announcement. The company has been organized with a capitalization of \$1,000,000 by J. J. Maxwell, John A. Ryan (general superintendent) and associates, with offices in the Liberty Building at Philadelphia, Pa.

A plant site of 30 acres has been obtained, and it includes 1200 feet of deep-water front on the Amelia River, adjoining the Seaboard Air Line Railway. Immediate plans provide for constructing ways with accompanying facilities for the construction and repair of composite ships up to 8000 tons capacity. Later the company will build dry dock, shear and dock legs for dry dock, machine shop, fabricating shop and wood-working shop, with complete facilities for constructing steel vessels.

The Fernandina Shipbuilding & Dry Dock Co., in summarizing its plans, states:

"The climate of Fernandina is excellent for construction work. A whole day's work will seldom be lost the year round. Heat or cold will not cause any loss of time. We can work every day in the year, while in some parts of the country the very cold weather reduces the efficiency of the men. The freight rates to Fernandina are the same as to Jacksonville, and our material on arriving at Fernandina will be promptly handled, as the switching yard adjoins our plant site. The steel used in construction will come mostly from Birmingham, Ala., also the coal. Oil can be obtained through Jacksonville, where most of the large oil companies carry large stocks and prices compare favorably with other ports. Lumber will be secured from the Fernandina Lumber Co., which is prepared to cut our keels and any timber we may want, until the mills of the Manasota Land & Timber Co. get into operation, when we will get all they can cut. They have the timber and can cut us any size material up to and including 12x12, and some 14x14. Iron castings can be secured in the South. Steel castings will be obtained either at Birmingham or some Eastern point. The reciprocating marine engines will be built at Birmingham, and within reasonable time we will be able to build them in our plant. Deck machinery will be secured either direct from manufacturers now manufacturing them or from shops in Birmingham."

Florida and Louisiana Shipyards Reorganized, With Richmond Capital Interested.

Two big Southern plants for the construction of ships have been reorganized for the purpose of increasing their working capital and facilities in order to care for Government contracts which they have obtained in accordance with details heretofore announced. They are the Slidell Shipbuilding Co. of Slidell, La., and the Merrill-Stevenson Company of Jacksonville, Fla., the latter enterprise having been in existence since 1885. The Louisiana Shipbuilding Corporation is the new title of the company at Slidell, and its capitalization is \$1,500,000, the charter having been obtained at Richmond, Va. The Merrill-Stevens Shipbuilding Corporation is the

new name of the Jacksonville company, and it has been chartered at Richmond with a capitalization of \$5,000,000.

The Merrill-Stevens management secured contract for the first 16 steel and composite vessels for which contracts were awarded by the Government through the Emergency Shipping Board, and the construction of these ships is rapidly progressing. These two new shipbuilding corporations were organized under the laws of Virginia because a large amount of Richmond capital had been invested in them. Their permanent officers will be the same as the present officials.

Shipbuilding News of the Week. . .

The organization of a company to build shipyards is planned by the Biloxi (Miss.) Commercial Club.

F. H. Swailes and C. I. Neilson will establish shipyards at Orange, Tex. They have obtained a 37-acre site for the plant.

Treenails for shipbuilding will be manufactured by the Kerns Lumber Co., Roanoke, Va., the daily output to be one carload. This treenail plant is about completed, and production will begin by December 10.

LA BLANCA SUGAR COMPANY.

Texas Properties Consolidated With Capitalization of \$500,000.

Details of the recent consolidation of several Texas sugar-cane growing and sugar-refining enterprises are stated by R. B. Creager, who writes to the MANUFACTURERS RECORD:

"The title of the company is La Blanca Sugar Co.; J. C. McDowell, president and director, Pittsburgh; W. F. Hull, vice-president and director, New York; B. G. Melus, treasurer, Pittsburgh; R. B. Creager, secretary, assistant treasurer and director, Brownsville, Tex.; H. U. Hart, director, San Antonio; B. F. Yoakum, director; F. D. Canfield, Jr., director, both of New York. The company's capital stock is \$500,000.

"The La Blanca Sugar Co. has taken over the sugar factory formerly belonging to the La Donna Sugar Co., situated near Donna, Hidalgo county, Texas; also 4000 acres of irrigated land in Hidalgo county adjoining the sugar factory; also 8000 acres of irrigated land in Cameron county, Texas. In Hidalgo county the company has approximately 600 acres of sugar-cane, and in Cameron county approximately the same acreage. This year the sugar factory will mill the cane from its own plantation, also the cane from the plantations of the Borderland Sugar Corporation; also certain cane purchased from other companies and individuals in Cameron and Hidalgo counties. The company is now planting additional cane on both plantations, and will bring its total acreage in planted cane up to approximately 2500 acres this year. It has available and will spend in new planting, improvements, etc., \$50,000 this fall and winter. Its factory at Donna is quite complete and efficient, and hence it will not at this time be in the market for additional machinery. It has purchased and is purchasing additional tractors, farm implements, etc."

Old Ties Make Excellent Firewood.

W. M. McCORMICK, Baltimore, Md.

Riding along the railroad train, frequently you find fires smouldering for miles, caused by the section hands piling up the discarded railroad ties and burning them.

This, to me, seems to be a great waste, and a letter from you on the subject would be helpful and perhaps start a line of thought that would retard this loss, at least.

After these ties have been racked up for a number of months they become excellent firewood, and I know from experience that they can be used to advantage.

Pendleton county, West Virginia, does not need a coal committee, as there is not a coal fire in the county. The electric lights are generated by water-power, and the blacksmith shops, which formerly used a little coal, have nothing to do since automobiles were introduced. The fires in that county are all of wood.

Transportation Needs Demand Waterways Improvements

At the tenth annual meeting of the Atlantic Deeper Waterways Association, held at Miami, Fla., last week, among the topics discussed were "Florida Waterways and the Importance of River and Harbor Improvements" by Congressman W. J. Sears of Florida; "Aerial Navigation Along the Atlantic Coast" by Rear Admiral Robert Peary; "An American View of European Waterways" by Colonel P. A. Stovall of Savannah; "Waterways and Terminals" by Congressman J. H. Small of North Carolina, chairman of the Rivers and Harbors Committee of Congress; "New State Waterways and Their Commerce" by Governor C. S. Whitman of New York, and "The Commercial Waterways of the United States—Demand for Protecting Their Greater Utilization" by Colonel John Mills, U. S. A., Corps of Engineers.

President J. Hampton Moore stated in his opening address many pertinent facts regarding the history of the Atlantic Deeper Waterways Association and its efforts to spread the doctrine of improved waterways as an aid to transportation and preparedness. In speaking of the Association's fight, he said:

"It is no time to paint word pictures of the distress of American railroads. We all know they have been largely commandeered for the Federal service. We know they are carrying troops and supplies to the border. We are all willing to put up with poor accommodations, crowded trains and the absence of dining and sleeping cars, in order that the Government's work may be done. We have witnessed in New England the practical seizure of high grade passenger train engines for service in the coal-carrying trade. We have seen the old and battered box cars come into use as carriers of human beings and live stock. These are a few only of the many present-day embarrassments of rail transportation. It may not be for us who have hammered away upon this very problem for the past 10 years to say, 'We told you so,' but it is not immodest to say that each year in convention during the past decade, and each year since 1907 that Congress has considered River and Harbor bills, we have insisted that the waterways were being ignored and that the day would come when their availability for public service would be demanded by the needs of the country. It is not unreasonable, therefore, to suggest to the convention that our predictions have been verified; that the incompetency of the railroads with their present mileage and equipment is clearly proven, and that the failure to put the waterways in proper and serviceable condition justifies the immediate surrender of every prejudice against the prompt utilization of the waterways for the purpose of our country.

"As president of this Association, I will go a step further and say that we should begin to hold accountable those who may be responsible for delaying the needful transportation agencies of the United States. Not only are the railroads suffering, but the people are making sacrifices and enduring hardships which they need not have borne but for the selfishness or pigheadedness of waterway obstructionists in the United States. There is no reason for longer delaying such absolutely necessary projects as an improved Chesapeake and Delaware canal. There is no good reason why we should not begin at once, in accordance with the recommendations of the United States army engineers, the completion of every unfinished link in the Atlantic intracoastal chain.

"If we will rid ourselves of local differences affecting transportation; if we will co-ordinate the work of the railroad with the work of the waterways and the other highways of the nation, we will best serve our country at this critical period of our national history. There is every reason why we should do so, even from the selfish point of view. Other nations have done it and other nations continue to do it during the war.

"We have been pushing onward and upward in this great work, the pioneers of a true and permanent preparedness in the United States."

At the time of the Atlantic Deeper Waterways Convention eight members of the Rivers and Harbors Committee of Congress, headed by Chairman J. H. Small, reached Miami after completing a trip covering Texas

ports that started at Freeport on November 17 and ended at Corpus Christi on November 23. Ports visited included Freeport, Galveston, Houston, Port Arthur, Beaumont, Corpus Christi and Port Aransas.

Writing from Corpus Christi, a correspondent of THE MANUFACTURER'S RECORD says:

"Expressions of the Congressmen indicated that they were especially impressed with Freeport, Houston and Corpus Christi. At Freeport vast sulphur mines are being operated and the demands for the sulphur in the making of munitions is so great that it is imperative that the Government provide every facility for getting this sulphur out. The 'fifty-fifty' basis on which Houston has done business with the Government in waterways projects impressed the committee.

"Corpus Christi falls under 'the most favored' clause of congressional comment, because its deep water projects, its port hopes and tonnage aspirations are somewhat analogous to those of Houston. Corpus Christi is reached by a ship canal 22 miles long, emerging into the Gulf at Port Aransas and traversing the shallow waters of Turtle Cove. In Corpus Christi Bay there is a land-locked harbor, similar to that of Houston, exempt from the disaster of gulf hurricanes and secure against the calamity of possible tidal wave. Corpus Christi Bay will in the years to come be a harbor of safety for the floating tonnage of a large area of the Texas Southwest coast."

STEAMERS ON THE OHIO RIVER.

Service to Be Restored to Supplement Railroads and Increase Transportation Facilities.

A big movement has been started at Wheeling, W. Va., to organize a steamboat company with \$500,000 capital to establish steamboat service on the Ohio River, and thus supplement the facilities of the railroads, which are now overtaxed by reason of the extraordinary demands upon them caused by the war. A large meeting was held last week, at which M. Walker Peterson, president of the Dollar Savings & Trust Co. of Wheeling, said that a group of financiers assembled to consider the proposition of putting boats on the river between Pittsburgh and Parkersburg had recommended the formation of such a company, and that their general idea is that all cities or towns affected or interested should be given opportunity to subscribe to the stock.

The movement was initiated by the Wheeling Commercial Association, and among others at the meeting were J. C. McKinley, chairman; Mayor C. Morgan Vestor, Col. Lansing H. Beach, U. S. A., Col. H. W. Stickle, U. S. A., W. B. Irvine and Isaac M. Scott of Wheeling; U. C. Hatch of Cleveland, and Chas. M. Ketchum, the latter secretary of the Wheeling Commercial Association.

Colonel Beach, who is division engineer for the Ohio River and its tributaries, said: "The boats have vanished from the river on account of the low freight rates made by the railroads, and also because the river men have been conducting their business in an antiquated way; they are pursuing methods in transportation similar to those used by the stage coach men in days long ago. Modern methods must be adopted if the bosom of the Ohio shall again feed our children as it did in former times."

Mr. Peterson said that the Government had made it possible to use the river for traffic between the two cities named, and it was the duty of the people to prove their appreciation of what had been done by using it as proposed.

Four States were represented at the meeting, which adopted resolutions to secure full co-operation with the proposed steamboat company and to see that sufficient equipment is provided to handle all classes of freight and to establish regular, quick and effective service.

It is said that the improvement of the Ohio River between Pittsburgh and Parkersburg cost the Government \$50,000,000, and knowledge of the expenditure of this large sum to make the stream fit for a full realization

of its capacities seemed to stimulate the meeting to every effort to see that they are properly developed.

The Huntington (W. Va.) Chamber of Commerce has appointed a committee to co-operate with Wheeling, to the end that a freight-boat service may be established between Huntington and Cincinnati.

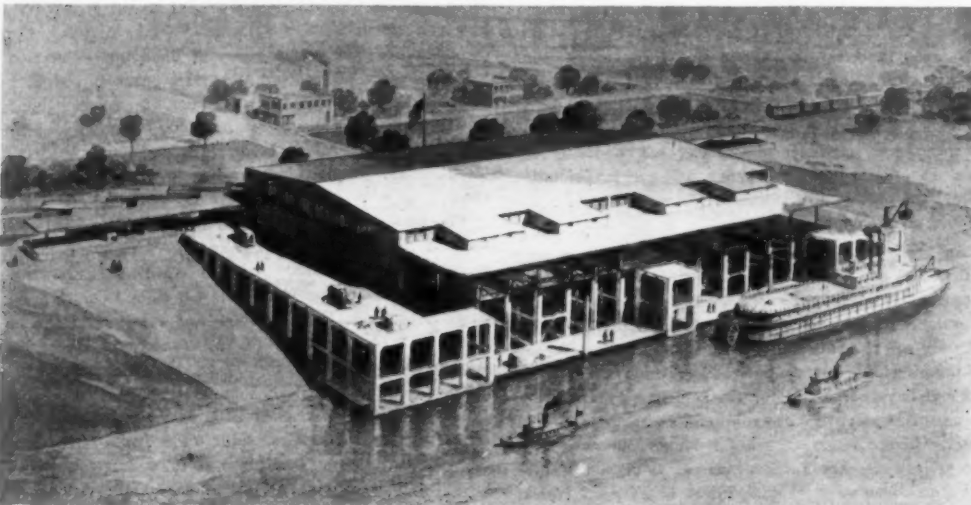
Towboats on Ohio River as Relief to Railroad Congestion.

Newell, W. Va., November 30—[Special.]—Two towboats have been chartered by the West Virginia Fire Clay Co., to be used in towing barges loaded with refractory materials from its plants just south of here to the mills and furnaces located along the Ohio and Monongahela River from Pittsburgh south. The mills and furnaces in the Ohio Valley district are in need of both fire clay and brick, and on account of the congested condition of the railroads it has been impossible to secure cars. The towboats "Old Reliable" and "Eclipse" have been chartered for this purpose. The construction of tramways and conveyors from the plants to the river bank has started. Permission to cross the tracks of the New Cumberland branch of the Pennsylvania Railroad has been obtained. Both boats will make two round trips per week to the mill district, and their trips will represent sufficient tonnage to equal 25 carloads per week.

River transportation has been found to be the only solution to relieve the congestion of the railroads in this district, and fire-brick and sewer-pipe manufacturers and clay shippers have been forced to use the waterway as a final resort.

The shortage of both barges and boats is admitted, but if it were possible to obtain additional barges these could be taken care of by the boats now in active service in this part of the Ohio Valley. In former years considerable paving brick was sent to Southern towns by barges, these being loaded in the vicinity of New Cumberland, W. Va. Of late years the railroads have taken over this business, but now they are unable to care for all freight offered.

SUGGESTION FOR A MODERN TERMINAL FOR INLAND WATERWAYS.



With the agitation of the transportation problem on our navigable rivers the fact has been clearly brought out that the success or failure of river transportation companies depends largely upon the methods employed in transferring freight to and from vessels. Various methods have been discussed, but none have been adopted as a standard. A plan developed by the Cleveland Dock & Engineering Co., Cleveland, O., suggests an inland river terminal that aims to meet all requirements in a fairly satisfactory way, providing, as it does, a means of unloading a vessel in the most economical manner at any stage of water. This design, as shown in the illustration, calls for an adjustable wharf deck or apron which can be raised or lowered according to the height of the water. Directly in the rear of the adjustable apron are automatically controlled freight elevators sufficient in number to permit the transfer of freight up to

400 tons per day through the use of electric freight trucks designed for handling sub or false platforms.

In this manner both inbound and outbound freight can be handled at the same time with economy and dispatch. Inbound freight is loaded on industrial truck sub-platforms on the boat, then moved across the platform to the elevators, where the sub-platform is deposited. It is then elevated to the freight shed floor, where other electric industrial trucks transfer each sub-platform to the different parts of the freight shed, or directly to the freight cars or waiting teams, according to destination.

The railroad car-switching arrangement on the land side of the freight shed permits the shifting of any loaded or empty car at will without interfering with any of the other cars.

On the stationary platform portion of the wharf apron is a large pillar crane capable of handling the heaviest pieces of freight from vessel to car, or vice versa.

TEXAS FARMERS BUYING COTTON.

A Change in Marketing and Financing the Staple.

Austin, Tex., November 28—[Special.]—The holding movement of cotton for a minimum price of 30 cents inaugurated by the State Department of Agriculture and joined in and co-operated with by the Warehouse and Marketing Department, the Farmers' Union and Retail Merchants' Association of Texas and other States has not only been effective in advancing and maintaining prices, but it has proven its contentions were correct. While the local exchanges do not quote the price of spot cotton as high as 30 cents, the price is high enough in European markets to justify 31 to 32 cents for spot cotton at the interior points in the South. The excuse given for not naming or giving its real value is that freight space in ships is not equal to the demands.

W. B. Yearly, assistant to the director of markets, Department of Agriculture, spent several days at the Cotton Palace at Waco talking to farmers and business men about the 30-cent holding movement and the Cotton States Advisory Marketing Board, which was organized at New Orleans October 2. He held a meeting with the field force of the Department of Agriculture at Waco, and then made a trip through North Texas.

In practically every town, large and small, from McLennan county north and east, where the field force of the State Department of Agriculture has spent most of its time, he finds farmers, merchants and cotton buyers holding cotton to almost the capacity of the banks to accommodate them. In nearly every town farmers, including tenants, have turned cotton buyer and have put up their own crops to the banks as a margin, and where a farmer is determined to sell they buy and hold it.

Many began buying early and have followed the market up. Many tenants have enough profit in their purchase to pay for a farm or make a good payment on one.

This development in the method of keeping cotton off the market seems to be an outgrowth of ingenuity so often born of necessity and peculiar to farmers. They certainly have to devise more seemingly impossible ways to get than any other class. This bids fair to be the

solution of the holding movement. The farmers seem to know the scarcity of cotton and the price spinners can afford to pay for it, and are not uneasy about their holdings, feeling sure someone will get 35 or 40 cents for cotton before another crop is made.

The banks are also strongly on the farmers' side this time, and speak in justification of the farmers' stand. Mr. Yearly also finds the fields of North Texas are bare of cotton and the boll-pulling about finished.

Activities in West Virginia.

Charleston, W. Va., December 1—[Special.]—The State of West Virginia is teeming with activity. The existing plants in various sections are for the most part working to full capacity, and there are a large number of new plants being located or on the point of moving to various locations. There is, of course, the usual scarcity of high-class labor, but in some sections they are paying the prices and do not find any extraordinary difficulties in keeping their plants going.

At Bluefield a large carbide plant has recently started operations, and they expect to locate half a dozen or more brand-new industries and have them in operation in a short time.

Fairmont expects shortly to locate a steel company with a capital of at least a million and a half. If there is no hitch to the present plans the successful location of this steel plant will enable them to locate a number of other concerns in allied lines. The Greater Fairmont Investment Co. is developing a factory town in Pleasant Valley, a short distance south of Fairmont. This town is to be a model one in every respect, even to the plans for the housing of the workmen, which are to be built and laid out on lines which will make the town very attractive. The town itself is to be laid out in the shape of a horseshoe. The houses of the workmen will form the horseshoe, with a civic center at one end and the factories and public utilities in the middle. A new railroad spur is to be constructed into the town, which will give the manufacturers locating there direct rail connection with big trunk lines, and a new trolley line will be built direct to it from Fairmont. They also contemplate building a power plant with a capacity of 10,000 kilowatts per hour, which is to be enlarged as occasion demands. This will be built at the source of coal supply and the power transmitted where needed. The natural-gas supply in this neighborhood is gradually being exhausted, and to overcome this they have in contemplation the building of a number of by-product coke ovens. The artificial gas produced thereby will eventually take the place of the natural gas as the supply of the latter falls short of the demand.

About six miles from Charleston is located the Dunbar Land Co.'s development at Dunbar. This development is beautifully situated in a level valley with direct trolley connections with Charleston, W. Va. The contemplated location of the Du Pont plant near Charleston is about six miles farther up the valley, placing Dunbar immediately between it and the city of Charleston and giving it an exceptionally favorable location. The electric line will be extended immediately to the Du Pont plant, which will occupy about 1,100 acres and will start, it is said, with about 2,000 employees. It is the intention of the Du Pont Company to build a complete town within the enclosure. The news about the Du Pont plant naturally created quite a stir in Charleston, although in some quarters it has been expected for some time. It is another indication of the exceptionally favorable location of the city of Charleston for industries of various kinds.

F. J. SEIFERT.

Enormous Food Destruction by Rats.

WM. ERSKINE WIMPY, Clarkston, Ga.

The night of death should come to the rats. They begin to breed at age of three months and breed from eight to twelve times yearly; litters average 10. It requires more to feed a sow rat than a baby. E. W. Nelson, chief of Biological Survey, reports the waste of food by rats at \$200,000,000 annually, and that it requires a standing army of 200,000 laborers to feed them. (See 23-page article of Nelson in July number National Geographic Magazine.)

Dun's reports that of 1082 business failures with \$12,812,012 liabilities in October, 1917, 311 were of manufacturers, with \$6,076,970 liabilities.

Improved Public Highways Needed to Win the War

TRANSPORTATION NECESSITIES CALL FOR GOOD ROADS AND INCREASED
USE OF MOTOR TRUCKS.

[Special Correspondence Manufacturers Record.]

Richmond, Va., December 4.—From Maine to California, from North Dakota to Texas, are gathered here this week nearly one hundred highway officials from thirty-seven States to attend the annual meeting of the American Association of State Highway Officials.

This large and representative attendance was inspired by the vital questions facing the construction and maintenance of roads in the United States during the war period.

In formal addresses in the convention hall and in conversation outside these officials have gone on record as favoring some plan whereby vitally needed roads can be built and those already built can be properly maintained, so that the vast sums heretofore expended on them may not be wasted. It was repeatedly pointed out by officials from every part of the country that highways are badly needed to give relief to the railroads, now greatly overburdened, and to assist in the movement of farm products and many manufactured products, and thus help the Government in the present transportation crisis.

The consensus of opinion as expressed by highway officials from every section is that some plan may be worked out whereby the newly-created Highways Transport Committee of the Council of National Defense, or some other Government committee, shall have the authority to designate those roads that will be needed for some phase of Government work, and that orders be issued for sufficient cars for materials and supplies necessary to build and maintain such roads.

The various officials who spoke about such a plan said their States would be glad to lay their complete road plans before such a committee, and would willingly abide by the decision of the committee.

One important fact brought out in the discussions was that some action should be taken by the Government to permit the maintenance of roads throughout the country, for which many millions of dollars have been spent. With the increasing use of heavily-loaded motor trucks over these highways, they will soon go to ruin unless repairs are kept up, and it would be a vital mistake and wastage of money to hinder maintenance work.

There was no question about the deep earnestness of the officials in discussing their road problems. They know their conditions thoroughly and how their roads are being used extensively in many ways that have a direct bearing on our war plans. It was therefore with much seriousness that they have outlined conditions confronting them. Every section of the country seems to be facing the same problems of labor and car shortage, high prices of labor and materials, and the effect of the issuance of priority. In many States fortunate enough to have a plentiful supply of local materials, these are being used, and in some cases it was said that temporarily they may have to go back to the older, discarded types of construction until such time as modern materials can be obtained.

But back of all the discussions as to conditions and present handicaps there was expressed a feeling of determination to put forth every energetic effort to do all road work possible and to create public sentiment in the important relation of highways to our war problems and the vital need of providing adequate means for carrying forward the construction and maintenance of these roads that will help to relieve the transportation situation both now and throughout the war period.

The convention was welcomed to Richmond by Mayor Geo. Ainslee, who stated that transportation lies at the very foundation of all human efficiency and human progress, and that today the railroads simply cannot handle the business of the country. With our waterways not adequately developed, he said we must look to the highways. He emphasized the fact that all during the war the European countries, especially Germany, have never stopped internal improvements, but carried them on to a greater extent than ever before, so that when they might need them they would be ready

for service. There was no luxury in builded roads, he concluded, unless it was in building cheap roads and failing to properly maintain them.

A. D. Williams of West Virginia, in responding, pointed out the great work the members of the association were doing in broadening the civilization of the land and bringing to those in heretofore out-of-the-way places the comforts and advantages of civilization and a more ready means of intercommunication, at the same time improving the lot of the farmer and his whole family and causing farm values to materially increase.

Following these formal addresses, President G. P. Coleman delivered his annual address, in which he said, in part:

"Early in May we took up with the War Department the advisability of using war prisoners for road purposes, and after a general discussion of the question we were advised that the Secretary of War was giving the question of using these prisoners on public work serious consideration. On September 12 I attended a conference of several highway commissioners, called by Dr. Stagg Whitin, chairman Executive Council, National Committee on Prisons and Prison Labor, at which time we prepared, at the request of Secretary of War Baker, a plan covering the use of war prisoners now in this country on public works. The administration has not given a ruling on this important question, one which I believe will go far towards relieving the present labor conditions, particularly on road work. I trust that we will have a general discussion of this question at this meeting.

"In June I took up with Senators Chamberlin, Martin and Bankhead the Chamberlin-Dent marginal road bill; (the construction for military purposes of a marginal highway by the War Department). I have been advised that this bill will come up again at the coming session of Congress, and that there is every reason to believe that it will be favorably acted upon. This, too, is an important question, which should receive consideration from us at this time, and we should determine just what support the association will give this bill.

"On November 1 we had a conference with Mr. Kirtley, assistant to Judge Lovett of the Priority Committee, covering their now famous order No. 2, affecting the shipment of road materials in open-top cars. Mr. Kirtley was unwilling to give any promise of relief in this matter, simply stating that they would use every effort to lift the embargo as soon as possible. This question is the first topic on our program for this afternoon, and is undoubtedly the most important problem confronting road interests today.

"Possibly the most important question which is before us at this time is 'How can the highway departments of the various States best serve the country in the present crisis?' The answer is not an easy one, since practically all the forces of the world are being used to carry on the present war, a war of unparalleled horror, but also of such unparalleled justice and right, so far as our own nation is concerned, that we cannot relax until the triumph of our cause is complete.

"We know that railway and water transportation are inadequate and are breaking down under present transportation conditions, and that they are calling on the highway departments of the States to provide relief, which, however anxious these departments may be to give, has been made almost impossible under existing orders and rulings. These conditions we must prepare to meet, since every interest of the country is dependent on the improvement of its highways for their proper expansion. The country which grudges money for highway work now and in the years to come will find itself called upon to pay dearly for its parsimony; therefore, it is the duty of the highway engineers—it is our duty—to concentrate our energies in carrying forward the war by providing highway transportation, and in this way serve a double purpose, for we will also be preparing for the conditions which will con-

front us at the end of the war, when competition will be sharp and the nations of the earth will be competing for the markets of the world. Our work, then, is to build such State systems, or, if you please, a national highway system, which will enable us to carry the war on to a successful issue, and at the same time prepare our country for peace, and enable us to develop our resources, protect our commerce, extend our interests, and take our proper place in rebuilding a world which has been devastated by the forces of war."

One of the most interesting addresses of the convention was that of Roy D. Chapin, chairman of the Highway Transport Committee of the Council of National Defense, who outlined the developments that brought about the appointment and work which the committee is to handle.

Mr. Chapin pointed out that in studying the various transportation facilities of the country it was recognized that the highways must perform an important part which could best be developed and utilized through a special committee to handle the highways. The committee, he stated, has been very closely studying the situation since its appointment, and at a meeting last week considered the attitude of this convention, and it was felt that if he could bring a message from Judge Lovett to the convention he wanted to do so.

Judge Lovett told him, Mr. Chapin said, he could tell the convention that he would be greatly surprised if on April 1, or sooner, he could not wipe out Priority Order No. 2 as it applied to highway materials, but until the coal situation is altered from what it now is he could not offer any hope. Mr. Chapin further stated that Judge Lovett fully recognized the value of highways, and did not in any sense class them with musical instruments or luxuries.

The Highways Transport Committee, Mr. Chapin pointed out, approved the selection of a committee of the association to handle road matters with the committee, and he suggested that they have representatives at Washington to look after their interests and more fully co-operate with the committee. He stated that the committee was closely studying every feature of the situation in conjunction with other governmental departments as to the Government's needs and to fully ascertain exactly what part of transportation can best be diverted to the highways. He said there was a natural evolution of transportation coming in this country, in which a more intelligent use of motor trucks will follow. Heavier loads will be carried, and the road engineers should remember this in planning their roads so they will be built to meet these new traffic conditions. He stated that it is the committee's wish to co-operate to the fullest extent possible with the highway officials of the country and hoped it will be able to fully represent the highways needs and importance in the councils at Washington.

In conclusion, Mr. Chapin predicted that the value of highways to the country is going to be much more appreciated three months from now than they were three months ago, but suggested that in the meantime the highway officials do all in their power to keep their roads in as good shape as possible, regardless of handicaps.

Following this address there was a discussion of present conditions affecting road construction and measures taken to meet them. Conditions in the East were handled by W. D. Uhler of Pennsylvania; in the far West by S. E. Bradt of Illinois, and the South by W. S. Keller of Alabama. These reports were followed by a general discussion.

At the other sessions of the convention, which extends over a period of three days, the following papers were provided in the program:

"Car Shortage, Present Conditions and the Remedy," by Charles M. Upham of Delaware.
"Military Roads, Why and Where," by William D. Sohler of Massachusetts.
"One Year's Experience With the Federal Aid Road Law," by Logan Waller Page, Director United States Office of Public Roads.
"Should an Effort Be Made to Amend the Federal Aid Road Law? If So, in What Respects?" by T. H. MacDonald of Iowa.
"Recent Developments in the Design and Construction of Road Surfaces," by H. Eltinge Breed of New York.
"Another Year's Experience in Maintaining a State System of Macadam Roads," by H. G. Shirley of Maryland.
"The Maintenance of Brick and Cement Concrete Roads," by F. F. Rogers of Michigan.
"The Maintenance of Gravel Roads," by Paul D. Sargent of Maine.
"Maintenance of Earth Roads," by John H. Mullen of Minnesota.
"The Maintenance of Steel Bridges, Paints," by W. S. Gearheart of Kansas.

WM. H. STONE.

Highways Essential to Winning the War.

Birmingham, Ala., November 24.

Editor *Manufacturers Record*:

The magnificent system of hard-surfaced and connecting highways saved the day in France, and while it may be truthfully claimed that the railroad facilities of the French Republic did not and do not compare favorably with our own, yet it must also be admitted that even now, at the beginning of the war we have entered into, the finish of which no man dare prophesy, the rail transportation of this country has proven itself utterly inadequate to the necessities of the occasion.

The situation in the United States today is no whit different and of no lesser degree of urgency than that facing the French army and the French Government and the French nation as a whole at the siege of Verdun, at the battle of the Aisne, the battle of the Marne or the present drive through Flanders.

The ultimate success of the allied cause depends absolutely now, as then, and will continue to depend, until Germany is beaten to her knees, upon our ability to do our part, and more, toward seeing that there is no shortage of food, clothing and arms or munitions for the men in the trenches and undergoing the actual fighting hardships of the war.

Furthermore, it is not only the armies in the field that are depending upon the wonderful resourcefulness of this country to make victory sooner or later a certainty, but in the meantime there are to be provided for other millions in civil life but with the same object in view, working in munition factories and in various other war industries; old men passed the period of usefulness except, mayhap, to act as nurses or care takers for countless little children orphaned by the war; thousands, yes, hundreds of thousands of women, widows of the brave soldiers who sacrificed their lives primarily in defense of their own country, but as we now fully realize, also to prevent an invasion of our own shores by the ruthless horde of heartless Huns.

We have accepted the biggest construction contract the world has ever known, the salvation of all civilized peoples upon the face of the earth and including also the mass of the now barbaric German race who will have to be debarbarianized after we have set them free.

We have the organization, unlimited capital, the necessary machinery, and, if that many are needed, 10,000,000 willing workers to tear down the old and erect the new structure. The job will be finished satisfactorily to all concerned, excepting the Kaiser and his brothers in blood.

However, our team work is not yet all that it might be, as instance Priority Order No. 2. Judge Lovett made a bad throw to first base, but no one for a moment doubts his good intentions, his fitness for the position he occupies or his ability to retrieve his reputation as a careful, cool-headed player who knows the fine points of the game and who will not again be thrown off his balance by clamor from the bleachers.

As far as the writer is concerned, and he speaks also for the company he represents, the enforcement of no measure, no matter how drastic or far-reaching in its effect, can have anything but his most hearty approval and willing compliance as to restrictions it imposes upon the conduct of his business, provided it is necessary to the furtherance of the war policy of the administration. I do, however, protest, and protest most vigorously, against having the strategic importance of the construction of public highways linked with that of the building of theaters and other places of amusement. The war could be fought to a successful finish if every theater in the world were dark. Lacking good roads in France three years ago and their maintenance ever since, it is quite within the possibilities that we might now be constructing and maintaining highways in portions of this country not to assist in repelling invasion of the United States by the German army, but to render its triumphal progress inland possible.

Priority Order No. 2 has, in certain sections at least, defeated the very object for the accomplishment of which it was issued.

Surplus open top equipment formerly used in the transportation of much-needed road material is now in certain sections lying idle at the mines for lack of labor to mine the coal and load the cars, or is equally idle in certain other sections under load in congested railroad terminals. The order should be rescinded or modified at once as a necessary war measure and to assist instead of retarding the proposed co-ordination and improvement of the transportation facilities (rail, water

and highway) of the entire country, to say nothing of the benefits that would thereby accrue to the agricultural and business interests.

BIRMINGHAM SLAG CO.,

H. G. IRELAND, Vice-President and General Manager.

P. S.—Since this letter was dictated we have received our copy of November 22 issue of the *MANUFACTURERS RECORD*, and have read with great interest your further editorial reference to the subject at issue in which you quote letter from Judge Lovett, in which we are gratified to note he expressed his whole-hearted approval of the policy you advocate relative to the importance of highway construction as an emergency war measure.

WATER-POWER LEGISLATION NOW EXPECTED.

Transportation and Fuel Needs May Force Congressional Action.

Washington, D. C., December 3.—[Special.]—Comprehensive legislation assuring the speedy development of the nation's water-power is confidently looked for as a part of the constructive effort of the current session of Congress.

This belief is based on the thought that the urgent needs of the nation will force such action. The shortage of coal presents the necessity for supplying at the earliest possible moment a means of generating power from another source to operate both the special war industries and the additional industries evolved through the national growth. The utilization of water-power to a greater degree would release much fuel for the Allies, and, by substituting electricity for steam, would facilitate the solution of existing transportation problems to a marked extent.

To provide the 40,000,000 steam horse-power now operating American factories, mines and railroads, at least 500,000,000 tons of coal must be mined annually, while nearly one-third of all the country's railroad equipment must be employed in transportation of the coal. Another 6,000,000 horse-power is the measure of electricity developed at steam plants.

As against the 46,000,000 horse-power thus generated by burning coal, only 6,000,000 horse-power are now produced by falling water. Yet engineers believe that 25,000,000 horse-power will easily be the eventual outcome of electricity created by displacing coal with water.

The demand for adequate Federal legislation to make possible any considerable development of the water-power available either in navigable streams or on public lands has long been recognized. Eleven years ago Congress passed a water-power law. Cumulative efforts to perfect that law are now before Congress in the form of the Shields bill and the Myers bill, both of which were set aside to expedite war measures at the close of last session.

After going to two committees, the Shields bill was reported July 12 without amendment, and is now on the Senate calendar. The Myers bill remains in the custody of the Senate Committee on Public Lands, to which it was referred. Both are said to stand an excellent chance of reaching the statute-book without undue delay. Care has been exercised in framing the bills to protect the interests of the Government and of the public. These facts are expected to have their weight with Congress at the present session. But the great overshadowing need for increased development of sources of energy to meet the constantly-growing demands for coal will doubtless prove the factor which will spur Congress to action.

Labor Shortage and Inadequate Transportation Continue to Retard Coal and Coke Output.

As shown by the weekly report of the Geological Survey, a slight decrease marked the production of bituminous coal during the week ended November 24. The total production of soft coal (including lignite and coal made into coke) is estimated at 11,280,490 net tons, an average per working day of 1,876,748 tons. This was 0.6 per cent. less than the output during the preceding week. It is encouraging to note, however, that the week's production exceeded that of the week ending November 10 by 1.4 per cent. The bituminous produc-

tion thus remains higher than at any time since early July.

ESTIMATED UNITED STATES PRODUCTION OF BITUMINOUS COAL AND OF BEEHIVE COKE.

| Week ended | Total for week | Total bituminous, including coal coked. | Average per working day. | Beehive coke (at the mines). | Average per working day. |
|-------------------|----------------|---|--------------------------|------------------------------|--------------------------|
| | | | | | |
| November 10..... | 11,116,356 | 1,852,726 | 574,772 | 95,736 | |
| November 17*..... | 11,325,292 | 1,887,534 | 622,751 | 105,789 | |
| November 24†..... | 11,280,490 | 1,876,748 | 656,093 | 109,349 | |

*Revised from last report. †Subject to revision.

The total production of beehive coke is estimated at 656,093 net tons, an average per working day of 100,349 tons. Anthracite shipments amounted to 42,936 cars, the highest mark attained since the week of September 1.

Inadequate transportation and labor shortage remain the great limiting factors in the bituminous industry. A shortage of cars is found increasingly severe over the East, North Central and Middle Atlantic States. Losses due to car shortage increased from 10.5 per cent. for the week of November 10 to 12.5 for that of November 17 in Illinois; from 5.6 to 11.5 in Indiana; from 24.6 to 27.0 in Ohio; from 21.7 to 28.0 in the Pittsburgh district, and from 10.0 to 12.7 in central Pennsylvania. An even sharper increase in the shortage of cars was reported from Kentucky, where losses due to this factor ranged from 20.3 per cent. in the Hazard field to 33.7 per cent. in Western Kentucky. West Virginia experienced some relief in the Winding Gulf, Panhandle and Pocahontas and New River fields, which was largely offset by the sharp rise in losses due to lack of cars in the Junior Philippi and Fairmont regions. In the latter district losses attributed to car shortage were 18.7 per cent. of the present capacity for the week ended November 10, and 40.0 per cent. during the following week. Conditions in the high volatile field of Southern West Virginia changed but little; losses due to car shortage here amounted to 38.9 per cent. of the full-time capacity.

Working conditions in the beehive coke region of Connellsville, Greensburg and Latrobe changed but little during the week of November 24. Losses of beehive coke due to all causes amounted to 34.4 per cent. of the capacity as rated by the railroads. The operators reporting divided the losses about equally between lack of coke cars and shortage of yard labor. Shortage of mine labor and other causes were responsible for a loss of 5.2 per cent. of the rated capacity. The same operators shipped 138,100 tons of coal.

PRODUCTION OF BEEHIVE COKE AND OF COAL, WITH CAUSES OF LOST TIME, AS REPORTED BY CERTAIN OPERATORS IN THE CONNELLSVILLE, GREENSBURG AND LATROBE DISTRICTS, PENNSYLVANIA.

| | Coal for Shipment. | | | Coke. | | |
|-------------------------------------|--------------------|---------------|---------------|---------------|---------------|---------------|
| | Week Nov. 17. | Week Nov. 24. | Week Nov. 24. | Week Nov. 17. | Week Nov. 24. | Week Nov. 24. |
| | Per cent. | Per cent. | Tons (coke). | Per cent. | Per cent. | Tons (coke). |
| Capacity, based on railroad rating. | 100.0 | 100.0 | 290,100 | 100.0 | 100.0 | 427,980 |
| Production | 31.6 | 35.4 | 138,100 | 66.4 | 65.6 | 280,560 |
| Losses: | | | | | | |
| All causes..... | 68.4 | 64.6 | 252,000 | 33.6 | 34.4 | 147,420 |
| No coal cars..... | 25.5 | 23.4 | 91,300 | ..... | ..... | ..... |
| No coke cars..... | ..... | ..... | ..... | 16.2 | 15.6 | 66,955 |
| Labor Shortage: | | | | | | |
| Mine | 40.1 | 39.1 | 152,750 | 1.3 | 2.4 | 10,255 |
| Yard ..... | ..... | ..... | ..... | 12.8 | 13.6 | 58,380 |
| Strike | 1.9 | ..... | ..... | 0.7 | ..... | ..... |
| Plant disability .. | 0.1 | ..... | ..... | ..... | 0.3 | 1,295 |
| All other causes .. | 0.5 | 0.6 | 2,250 | 2.7 | 2.5 | 10,535 |

Shepperson's Cotton Facts.

Apart from the usual tables of statistics on cotton prices, receipts, exports and stocks, home and foreign consumption, visible supply and acreage of cotton in the United States and other countries for a series of years as given in previous issues, the October, 1917, edition of *Cotton Facts* has a number of new and interesting features. Among these are: Tables on long staple upland production in the United States. Tables giving the high and low prices of middling every month since 1897. Tables giving the high and low prices of the eight leading futures options every month since 1912. Tables giving all the important fluctuations in futures since September 1, 1911. Also a chart showing the course of prices in New York and Liverpool, graphically indicating the rise of the premium in Liverpool, etc. A comprehensive index enables specific information to be easily found. *Cotton Facts* is published by the Shepperson Publishing Co., Cotton Exchange Building, New York. Single copies \$1.

Forbid and Prevent the Publication and Dissemination, in America, of Any Paper, Magazine, Pamphlet, etc., Printed or Written in the Language of Any Country With Which We Are at War, or Which Is Not Our "Ally" in Its Fullest Sense!

Dallas, Tex., November 23.

Editor *Manufacturers Record*:

I have been a subscriber, either for myself or for my companies and associations, to the *MANUFACTURERS RECORD* for more years than I care to tell, and I have never been better pleased with it than since the war began. Your stand on all national matters has been broad and truly patriotic, and I admire your fearlessness and independence in calling things by their right names at a time when there is too much "nasty-niceness" in the use of euphemism calculated to avoid offense to semi-patriotic ears. It is high time that we called a spade "a spade;" it is time that we called treason "treason" and not "pacificism;" it is time that we made a sharp, if arbitrary, line between those who are half-hearted Americans and those who are Americans in thought, word and deed; it is time that we "hewed to the line," let the chips fall where they may!

One of the things in which we are most slack is our method of dealing with those within our borders who are not openly against us, but those who lose no opportunity or method to evade their full duty to their adopted country. With some of these it is ignorance of what that full duty consists and, in many cases, that ignorance is our fault—we have never taught, nor insisted on, full and undivided loyalty to our country. We have forgotten that one born and raised an American and brought up with an American heredity and environment must necessarily have an instinctive viewpoint which makes his every thought, word and action different in its intention from those born and raised abroad or raised in America in a semi-foreign environment. To one to whom the usages and traditions of foreign countries clings or who, in America, is never fully nationalized in speech or thought, there is a lack of understanding, an inability to comprehend our national spirit. They have seen us careless as to our civic duties; they have heard us carelessly, and often wantonly, criticize our Government; they have seen us wilfully do that which, in their own countries, would have called for stern restrictive measures and which have brought not only no punishment from our Government, but have not even caused censure from our own countrymen. They have seen all this and drawn false conclusions—our fault—for they have never understood that under all this there laid a deep, abiding patriotism, that the flippancy of the American was merely a shame-faced mask to cover deep and serious feelings, that we disagreed to acrimony on the means, but that we were as one towards the end! We have used license instead of freedom, because our birth and training have given us an elasticity of mind which enabled us to veer back instantly to true patriotism when the need arose, but in all this we have forgotten that those of foreign birth and breeding and direct ancestry have not that facility, that to them our carelessness as to our strict duty to our country is taken as seriously as it would be in that of their birth or ancestry. We have been weakly, childish and wickedly lax in our example to them, until stern necessity made us throw off our veneer of heedlessness of our patriotic duties; but the lifelong habit of that heedlessness still clings to us in part and we are still to blame for much that is happening to us.

One of these things, and the one to which I wish to bring special attention, is the matter of newspapers, magazines, pamphlets and other literature in foreign tongues published in America. We have been so careless as to the effects of these in the past that even now we do not recognize their evil malignity in the present crisis. We have allowed false sentiment to blind us to the evil of foreign tongues in our midst during peace times until we fail to recognize the full danger of them when we are at war. There has been so much sentimentality about our "home-town paper" in America that it has been transferred not only to the foreign "home-town paper" of our emigrants and their direct descendants, but it has haloed the foreign lan-

guage paper and literature published in America. Notwithstanding our flippancy and our constant disparagement of anything "soft" we are, at heart, a people keenly alive to sentiment; all the important things which we have done as a nation have had sentiment as their genesis; our political appeal, while theoretically based on practical matters is, at the bottom, based on sentiment, and try as hard as we can to make our business a matter of absolute practicality, we are always mixing our feelings with our common-sense.

Thus it has been that we have allowed this matter of alien tongue, both written and spoken, to remain unchecked among us in peace times without any thought of what an enormous and unjust evil it might become if we ever went to war. We have allowed our foreign-born and raised population a license in this matter, which, even now, in war time, we are seemingly reluctant to curtail, much less to abolish—and the fault is entirely ours! To amend that fault entirely and instantly when the crisis arrives is, undoubtedly, unjust to many of our foreign citizens, but this is a time when strict justice must be subservient to necessity, when martial law must, in many instances, supersede the ordinary court of justice. Had we made our present condition of war ourselves we might think of pausing before we committed an injustice to any among us, but our condition has been thrust upon us by the Governments of those very alien tongues, and it is to them that a portion of the blame must attach. We must, for our own preservation, for the saving of the lives of those dear to us, commit the lesser injustice in order that the greater wrong may be the more quickly righted:

WE MUST FORBID AND PREVENT THE PUBLICATION, IN AMERICA, OF ANY PAPER, MAGAZINE, OR PAMPHLET IN WHOLE OR IN PART PRINTED IN THE LANGUAGE OF ANY COUNTRY WITH WHICH WE ARE AT WAR OR WHICH IS NOT AN "ALLY" IN ITS FULLEST SENSE!

There is no other way out of it; to temporize with those who are not "for us" is to give them partial license to be "against us." To make them publish a portion, even a translation of their alien matter, only leads them to believe that we are partially afraid to do that which, in their native country, would be done instantly and harshly. Is any American so foolish as to believe that Germany, or any of her allies, would for one moment permit the publication within their borders of anything in the English language and for general dissemination? In this they are wiser than we; they realize that a divided allegiance may be strongly fostered and even made treason by causes less than this.

Our national language is "English;" we may not use the same exact words to represent the same objects as do the inhabitants of England; we may pronounce many words differently; our idioms may be entirely different from those of England and we may, in our overweening conceit, say that our speech is "American," but it is nevertheless "English," the speech of the Anglo-Saxon race as differentiated from any other tongue. We can not be a completely united nation, a truly homogeneous people, until we all speak, read and write it as a nation. He who lives in a foreign tongue is that much not truly one of us no matter how or where he may live in our country; the same words, thoughts and ideas couched in a foreign language carry with them a different shade of meaning, a different psychological effect than if couched in the native tongue and this is especially the case when that foreign language is the native or inherited one of those using it. This does not apply, of course, to matters of faith, to those whose soul can only lift itself towards its Deity in the language of the prayer which it learned in infancy. No one would wish that the Koran, the Talmud, the Avesta or any form of "Bible" should be a compelled English translation; that is a matter over which no Government has any right of control, but over

the use of a foreign language exclusively in our everyday physical and mental needs, the Government has the moral and physical right to legislate and enforce against it even in times of peace if it believes that that use is detrimental to full and early allegiance. If such is the right in peace it becomes many times more proper to control the evil in time of war when the use of a foreign—and enemy or semi-enemy—tongue is not only a possible cloak for treason, but when that use tends to physically hold back the wavering citizen from his true allegiance when it is used as a last mental and moral hold by the enemy or its emissaries.

Let us look at this matter practically and without false sentiment. WHY should we allow any publication of the character of a newspaper, magazine or pamphlet to be published in America in a foreign tongue? Whom does it benefit to any great extent except those who expect to make a profit out of that publication? It may be said that were it not for such publications the newly-arrived foreigner, speaking no language but his own, would be deprived of the current news and particularly of the current news of his former country or locality. That is not true, such a paper can give the same news in English and there is no community where a capable interpreter may not be found among his compatriots. It is true that the deprivation of the news being printed in the particular tongue, text or alphabet of his own tongue may seem a hardship of a sort, but it is one which will soon wear off and that hardship of the present is a potential benefit to both the foreigner and the country of his adoption. The sooner any alien becomes a full citizen of this country in ideas, and language the sooner he is of benefit to himself and the country and, as he always comes here to benefit or better himself he assumes, in that coming, an obligation to the country of his adoption which he must fulfill, or be made to fulfill. We have been too lenient in the past to our alien citizens, we have allowed them privileges and exemptions which we have denied to those long born here and we are reaping the results of that policy and practice. Our mad desire for immigrants led us not only to open our country almost without restriction to those of any, often so-called white race, but it has led us to allow them a license in their actions here which have tended to breed and keep alive within our boundaries a citizenship more alien to us than if they had remained at home.

No polyglot country can be a homogeneous nation, and America is a very Babel in that respect. Were there no speech in all our land but that of our country, were there no publications in America but those in English, there would not be one tithe of the difficulty which we are now having with many of those foreign-born, or only one generation away, but imbued with the ideas that are inseparable from the colloquial use and interchange of an alien tongue.

You have advanced in the *MANUFACTURERS RECORD* many patriotic ideas. Make a slogan of that one which I have capitalized. Keep at it and urge it; din it into the ears of the Administration until they realize its vital import! And, if prompt, decisive action is taken on this matter by the Government, if it is enforced to the letter not only during the war but afterwards, a greater step will have been taken to make a truly homogeneous race of Americans than any other measure which we can take at this moment. The continuance of use of an alien tongue by the alien after his intention or adoption of citizenship in this country is an unmitigated evil both to himself and us; he is only half one of us who habitually uses or reads his own language when he has the opportunity to use ours. For his own benefit, as well as ours, compel him to be wholly one of us in speech and with that speech shall come a better understanding of us and a quicker assimilation with us. As long as his speech and his American reading matter is alien, so long will he be half-alien, and we have had a bitter experience of such and the end is not yet unless we take the measure I urge.

FORBID AND PREVENT THE PUBLICATION AND DISSEMINATION, IN AMERICA, OF ANY PAPER, MAGAZINE, PAMPHLET, ETC., PRINTED OR WRITTEN IN THE LANGUAGE OF ANY COUNTRY WITH WHICH WE ARE AT WAR, OR WHICH IS NOT OUR "ALLY" IN ITS FULLEST SENSE!

Do that at once, and follow it up, after peace is declared, by legislation which shall make the speech and the printed matter of our country our national language!

H. S. COOPER.

Our Duty to Declare War on Austria

By COURTENAY DE KALB.

[Written more than a week ago by Mr. DeKalb in San Francisco, and therefore many days before President Wilson's vigorous message to Congress on Tuesday of this week, urging a declaration of war against Austria, the article herewith yet contains so vividly illuminating a presentation of America's relations with the warring nations of Europe that we gladly give it space as a notable contribution to the discussions of the day. It will be helpful in giving the readers of the Manufacturers Record a clearer view of America's duty in the world's war.—Editor Manufacturers Record.]

It was pernicious pro-Germanism that caused the dismissal of former Ambassador Dumba. That was a considerable time before the withdrawal of Count von Bernstorff; nevertheless, this country persists in the pretense that we are at peace with Austria.

Everyone knows that we are not at peace with Austria; that we are loaning money and sending supplies to Italy with which to continue her contest with Austria; that our soldiers will soon be fighting Austrians, and that we are only fooling ourselves by assuming a technical position that is at variance with the facts. The State Department has knowledge of the activities of Austrian subjects resident among us, hampering our preparations for war, and the labor agitation has been in many places the work of Austrians; they are free to spy upon us and to send knowledge of value to the enemy in a way that would be impossible were an actual state of war with that country acknowledged; still we continue the pitiful farce.

The latest pronouncement on the subject has come from Senator Hitchcock, the ranking member of the Foreign Relations Committee of the Senate. It may be construed as expressing the opinion of the Administration, and it constitutes another example of the unfortunate idealism of our Government. He affirms that the question of declaring war upon Germany's allies "presents many complications, and is one of extreme delicacy."

A little while ago we were being fed with newspaper stories by German and Austrian agents, who gained enough credence to have their subtle insinuations transmitted over the wires, assuring us that Austrian credit was gone, which was in a measure believable, and that her man-power had run down to the breaking point, and that in general she had gone into a decline and would soon be out of the war. We were even assured that she was determined upon a separate peace, from which Germany could not long restrain her.

Such falsehoods, assiduously disseminated through the country, possess the power of halting our effort in making ready for the great struggle that is to come, and they also excite a certain sympathy for that old wreck of what was once the might and grandeur of the Holy Roman Empire. These lies made us content not to declare war against Austria; they made it seem superfluous and therefore foolish. The intent was to make us think wrongly, and therefore to pursue courses advantageous to Austria and to her Teutonic master.

Now that Austria has broken over the mountains and swept the poorly supported army of Cadorna back upon the Venetian plains, do we hear any more about the decimated man-power of Austria, about the impending defection of Austria from the pan-Germanic alliance, or about difficulties in financing her aggression into Italy? It is in retrospect that we see the sorry mistakes we had made in our estimate of Austria. Must we suffer some great disaster before we can realize what it means to harbor an unrestricted horde of enemy aliens in our midst just because the diplomatic controversy that led finally to war happened to be with the head of the German house instead of with its valet?

Senator Hitchcock reveals more of the crooked reasoning, so common in this country, when he says further: "A declaration of war against Austria-Hungary might be construed as an endorsement of Italy's demands upon Austria. These include a demand for territory which virtually would deprive Austria of every seaport—a fruitful situation for a future war. It is a question whether the United States would be willing to give such an endorsement."

That is one of the most surprising statements that has emanated from a high source in our Government

for many a day, and it is illustrative of two serious misconceptions as to the aims of this war, and as to our position as a belligerent, that have gained almost universal currency. The first error is revealed in his evident solicitude for the territorial integrity of Austria-Hungary. He would not deprive her of seaports because it would be fruitful of future wars. To be sure, if the countries we intend to conquer are left intact as great national entities, they would immediately lay plans for ultimate reconquest of territory taken from them. More than this, they would, if left unshorn of their prerogatives as great self-governing nations, set to work to redeem the prestige lost in a war from which they had issued beaten and humiliated.

Senator Hitchcock has been tricked, like the majority of our people, by false conceptions of our mission in establishing democracy throughout the world. Don Quixote, it will be recalled, made a number of amusing blunders, that have become immortal through the magic touch of Cervantes without losing any quality of error; nevertheless, by going forth in the spirit of a deep, generous but misguided concern for distressed humanity, only to find the world unconscious of its need of deliverance at his hands. It is beautiful to develop our ideals and to work them out within our own household, but it would be a pity to have Uncle Sam sail over to Europe and come back a buffeted and ridiculed Don Quixote.

The French are the most practical people in the world; they are not idealists and sentimentalists as are we; they do not cling to a notion of superiority such as mars the influence of the English; they are not possessed of a great overweening ambition for power and for the imposition of their type of culture on the world, as are the Germans, but they are gifted with the ability to see things as they are. Their entire training leads them to distrust the doctrinaire, the man with a pet theory. They have experimented with governments of different complexions during the war, and they have swung back to their great representative conservatism, Georges Clemenceau. Frenchmen breathed a sigh of relief when he was called to organize a ministry; so did all the world that knew what that great name stood for as a political force. It meant skill in diplomacy, understanding of men and the problems of government, and it stood as a guarantee of political sanity. One of the first answers that he gave on being interpellated concerning his war aims was, "We are in the war for victory!" The world understands perfectly what was in the mind of the great Frenchman when he made that declaration.

Should we then withdraw our challenge to Germany because France means to take territory after the struggle is ended? That would be as logical as to decline to acknowledge that we are at war with Austria because Italy proposes to have Trieste and some more of the Adriatic littoral. Clemenceau, however, has an entirely different conception of the status of the Central nations after the outer world shall have finished with them. The taking back of Alsace-Lorraine would leave a sore in a united Germany that would be as provocative of future wars as the wresting of Trieste from Austria. Suppose, however, that after the war there is no German nation, no Austria-Hungary, but instead that there is a group of separate peoples shorn of the powers that flow from unity in a great national entity, and suppose that trade relations were established that would enable the people to live and prosper without fusion into a great body politic, would there be peril then because some of the nations now at war insisted on a return of territory to which they could show historic claims? Would not Alsace-Lorraine enjoy the benefits of democracy when reinstated in their French allegiance? On the other hand, would we depose the King of Italy in order to further democratize the Government of that country, or

quarrel with the royal ornament over the British parliament?

Clemenceau cast fanciful ideals to the wind when he said a few days after assuming the premiership:

"The truth is, many thinkers, philosophers, deputies, senators, politicians and Frenchmen are convinced that some miracle will suddenly produce the Society of Nations. I do not believe that the Society of Nations is the necessary conclusion of the present war. One of my reasons is that if you propose to me tomorrow to bring Germany into this Society of Nations, I could not consent to do so. What guarantee would you offer me? You would offer me the guarantee of a signature. Go and ask the Belgians what they think of Germany's signature. To found the Society of Nations we must have peoples capable of liberating themselves. That is why you are always obliged, in all your hypotheses, to begin by saying 'Germany herself will break up Prussian militarism.' The terrible thing about it is that she does not break it up, and that she makes an instrument of it."

These are the words of the greatest and most practical statesman of our day. It is plain that he holds no fond delusion of allowing Germany to endure as a centralized power to continue a menace to the peace and security of the world.

Never in all history, since Germany has been a force to reckon with, has she been other than a disturber of the peace of mankind. She has been a scourge for over 2000 years; beaten again and again, no sooner has she gathered her scattered principalities together than she has started forth anew on a career of conquest. Her trade ideals, even, are not just to make money, but to dominate and throttle and enslave. The spirit of pan-Germanism is as old as the German people; the pride of race, that leads them to exalt their customs, their views, their "kultur," as the only kind fit for the world, lies ineradicable in the German heart. They do not know Prussianism as we see it; it expresses their conception of unity for the achievement of a national purpose. They have nowhere established principles of democracy. It is contrary to the genius of the German mind. Democracy has come out of the sense of individualistic right developed primarily in Greece and Rome. Our political inheritance is from Mediterranean not from Teutonic culture, and the German has no inherent feeling of regard and esteem for it.

Were the case otherwise, why are not the Germans resident among us, and delivered from the control of Prussianism, heart and soul with us in this war? We find, on the contrary, that they are loyal to Germany, directly and indirectly aiding our enemy and hampering us at every turn.

The famous little boy with the apple expressed what we must declare regarding Germany. When we get done there must be no core. There must be no Germany nor Austria-Hungary to fret about Alsace-Lorraine or Trieste and provoke future wars. Let us lay sentiment aside and be practical; let us not commit the mistake of thinking that we hold the recipe for political and industrial happiness. Let us fight for victory and make the world safe for Americans, safe in the German States, safe in Austria, in Mexico, in every country under the sun. In doing that, and in giving counsel at the final peace board, we will have achieved a great stroke for America. We will have established something that has not been true before, and wherever the safe American then goes he will spread the principles of freedom and good conduct that will be an example to all men.

Senator Hitchcock, voicing a widespread notion among our people, assumes that our declaration of war against Austria would make us the ally of Italy, committed to her schemes of reconquest. Did our declaration of war upon Germany make us the technical ally of France and England? Are we committed to their plans for readjustment of political boundaries after the war? Do we even know with any precision what those plans are or what they may become?

As a matter of fact, we are coadjutors in a struggle for the peace of the world, but alliance is an entirely different thing; that can come only through solemn treaty, and no treaties of alliance have been entered into between the United States and any European country.

It is pleasant and convenient to speak of "our Allies," but for the sake of clearly understanding our duty,

which primarily is to our own country, it is desirable to think of things in their true relations.

We are less likely to injure ourselves or any of our friends across the sea by acting in the light of facts. We are already doing Italy an injustice by not declaring war on Austria, for example, and on the grounds offered for not doing so we are further discriminating against Italy in favor of France. If we are to be allies of any of the nations at war with the Central Powers, we must be so with all.

A little less sentiment, and a little more straight logical thinking, would be more to the purpose. Our duty is to crush Germany, and to crush Germany we must also crush Austria. In justice to ourselves and to those now making common cause against the unspeakable Teuton, the first act of Congress in December should be to declare war on Austria-Hungary and on all of Germany's partners in her assault upon civilization.

Record Lime Production in 1916.

The United States Geological Survey reports that the total quantity of lime sold in 1916 was 4,083,803 short tons, valued at \$18,618,816, an increase over the revised figures for 1915 of 460,995 tons, or more than 12 per cent., in quantity, and of \$4,194,780, or 29 per cent., in value. This was the first year in which the marketed production of lime in the United States equaled or exceeded 4,000,000 tons, although the number of plants operating is smaller, as shown in the accompanying table:

LIME BURNED AND SOLD IN THE UNITED STATES, 1910-1916.

| | Quantity (short tons). | Value.* | Average price per ton. | No. of plants in operation. |
|-----------|------------------------------|--------------|------------------------------|-----------------------------------|
| 1910..... | 3,595,954 | \$14,088,039 | \$4.02 | 1,125 |
| 1911..... | 3,392,915 | 13,689,054 | 4.03 | 1,139 |
| 1912..... | 3,529,462 | 13,970,114 | 3.96 | 1,017 |
| 1913..... | 3,595,390 | 14,648,362 | 4.07 | 1,023 |
| 1914..... | 3,380,928 | 13,268,938 | 3.92 | 934 |
| 1915..... | 3,622,810† | 14,424,036† | 3.92† | 906 |
| 1916..... | 4,083,803 | 18,618,816 | 4.56 | 778 |

Percentage of increase in 1916.....

12.4 29.1

*The value given represents the value of bulk lime f. o. b. at points of shipment, and does not include weight or cost of barrel or package.
†Revised.

The record figures would have been even greater were it not for high cost of supplies, scarcity of labor, strikes, scarcity of railway cars in many parts of the country and fuel shortage.

The increase in tonnage was accompanied by an even greater increase in average price per ton, that for 1916 being by far the greatest ever recorded by the United States Geological Survey. This increase in price was due not only to increase in demand, but also to increased costs of fuel and labor. These same causes, however, account largely for the decrease of 128 in the number of active plants, which in 1916 was 778, the lowest ever recorded by the Survey. This decrease was principally among the small producers in Pennsylvania, where there were 116 fewer operators active in 1916 than in 1915. The number of kilns in operation increased from 2340 in 1915 to 2341 in 1916.

Of the 42 reporting States, all but eight showed increase in quantity and value of lime sold in 1916.

States whose sales of lime in 1916 exceeded 100,000 tons in quantity ranked as follows:

STATES WITH SALES IN EXCESS OF 100,000 TONS IN 1916 BY RANK.

| Rank | State by quantity. | Quantity (short tons). | Value. | Average price per ton. |
|------|--------------------|------------------------|-------------|------------------------|
| 1 | Pennsylvania | 972,343 | \$3,857,553 | \$3.97 |
| 2 | Ohio | 570,972 | 2,702,953 | 4.73 |
| 3 | Virginia | 326,812 | 1,279,658 | 3.88 |
| 4 | West Virginia | 277,721 | 1,008,021 | 3.63 |
| 5 | Wisconsin | 266,905 | 1,207,069 | 4.52 |
| 6 | Missouri | 192,280 | 856,300 | 4.49 |
| 7 | Maine | 172,470 | 1,065,882 | 6.19 |
| 8 | Maryland | 157,673 | 574,998 | 3.65 |
| 9 | Massachusetts | 145,020 | 811,402 | 5.60 |
| 10 | Indiana | 121,306 | 495,238 | 4.08 |
| 11 | New York | 117,490 | 636,668 | 5.42 |
| 12 | Tennessee | 109,533 | 378,017 | 3.45 |

Increase in quantity and value of lime for building, chemical works, paper mills and tanneries reflects the increased activity in these industries during 1916, following periods of decrease in all but chemical works during the few years preceding. Lime for sugar factories, on the other hand, after an encouraging in-

crease in 1915, decreased in 1916 to a quantity and value less than in any year since 1910.

The quantity of lime sold for soil amendment, in spite of optimistic comments in trade journals, continued to decrease from the record figure of 1914—2 per cent. in 1915 and nearly 9 per cent. more in 1916. The cost of lime has increased steadily—1 per cent. in 1915 and nearly 3 per cent. in 1916, which fully explains the decreased consumption in agriculture. Increases in average price per ton were 18 cents in 1915 and 31 cents in 1916.

Notwithstanding the decrease in total quantity of agricultural lime sold, the increase in number of producing States points to a gradually broadening recognition of the value of lime in agriculture. Besides burned lime, a steadily-increasing quantity of pulverized limestone has been sold for this purpose at an average price of little more than \$1 a ton. The quantity of pulverized limestone sold in 1916 was 1,066,376 short tons, valued at \$1,146,582.

Hydrated lime in 1916, according to the accompanying table, showed a striking increase. The marketed production amounts to 730,705 tons, valued at \$3,697,601, an increase of 26 per cent. in quantity and 54 per cent. in value. The percentage of increase in quantity was greater than in any of the three preceding years, but less than that in 1912, which was 37 per cent. The percentage of total lime represented by hydrated lime in 1916 was 18, 2 per cent. more than in 1915, showing that the relative demand for hydrated lime continued to increase. The average price per ton, after declining as a whole from 1911 to 1915, exceeded \$5 in 1916 for the first time.

HYDRATED LIME SOLD IN THE UNITED STATES IN 1916.

| State. | Quantity (short tons). | Value. |
|------------------------|------------------------|-----------|
| Alabama..... | 6,780 | \$38,864 |
| Indiana..... | 22,615 | 111,278 |
| Maryland..... | 31,913 | 158,311 |
| Missouri..... | 24,647 | 123,903 |
| New York..... | 10,909 | 51,948 |
| Ohio..... | 351,792 | 1,806,974 |
| Pennsylvania..... | 126,890 | 585,847 |
| Tennessee..... | 14,634 | 72,777 |
| Texas..... | 14,575 | 86,852 |
| West Virginia..... | 48,309 | 209,155 |
| Other States (16)..... | 77,641 | 448,692 |

The increase in demand for hydrated lime is further indicated by the continued increase in number of active hydrating plants. There were 89 operated in 1916, an increase of five, compared with increases of two in each of the three preceding years.

Comparison of the foregoing table with unpublished figures for 1915 shows that all States whose marketed production exceeded 5000 tons increased their sales in 1916.

The greater part of the hydrated lime marketed, 730,705 short tons, is used for building. This quantity, 436,289 tons, represents about 29 per cent. of the total quantity of lime used for building. This percentage does not include lime that was purchased as quicklime and hydrated before being sold to builders. Even with such lime added to the hydrated lime reported by producers, however, and with the steady increase in production of hydrated lime during the past 11 years, the percentage above shows that there is still ample opportunity for further rapid increase in production of hydrated lime for building operations.

AMONG WEST VIRGINIA COAL MINES.

New Plan of Reporting Car Service—Proposed Coal Development Temporarily Checked.

Fairmont, W. Va., December 4—[Special.]—The Central West Virginia Coal Operators' Association has adopted a new method of reporting the supply of cars, which will continue for a while at least. Each morning the mines of the Fairmont-Clarksburg region are canvassed by telephone and telegrams, stating the amount of tonnage lost by the shortage of cars, are then sent to the National Fuel Administrator, the Commission on Car Service, and A. W. Thompson, chairman of the operating committee of the Eastern railroads, whose headquarters are now at Pittsburgh. On December 1, when the new plan went into effect, there were 92 mines canvassed, and the loss of tonnage was 20,300 tons. On December 3 the mines received a full run of cars, which has often occurred on other Mondays recently, but this has seldom continued during the rest of the week.

A number of coal developments in Northern West

Virginia are held up because of the regulations regarding new operations. No one in this section seems to understand them. D. R. Lawson, secretary of the Central West Virginia Coal Operators' Association, will go to Washington this week to see Dr. Garfield, hoping to straighten out the matter. There are new developments all through this region which have ceased for the present.

There are no less than 20 comparatively new operations of importance on the Coal & Coke Railroad between Gassaway and Charleston, and probably as many near Morgantown, on Scott's Run or out toward Blacksburg from Morgantown.

The New England Fuel Co., which recently bought the immense tract of coal land known as the Davis-Elkins tract, took more than it really wanted for development, finding it impossible to get a division of the tract. Therefore, it is being subdivided and disposed of in part to half a dozen different companies, some of which want to enlarge their holdings.

Food Regulations Depressing Rice Interests.

New Orleans, La., December 1—[Special.]—Several large rice mills in Louisiana and Texas are closing down because of the dullness of the rice market brought about by the stringent rice regulations of the National Food Administration. Usually the rice crop at this time is in the hands of the millers, but this year it is mostly still in the hands of the farmers, who have finished harvesting it and have had it warehoused pending some improvement in the situation. Rice sales were frequently made by millers in normal years for delivery one year after sale and other similarly long periods, but the 30-day shipment and 60-day supply rules of Hoover have made such sales impossible at this time. The crop is very short and the demand unsatisfactory. The mills are buying rough rice on a hand-to-mouth basis, and those that will not close down because of the poor selling conditions will be milling very probably until March.

Because of the depressing effect of rice price and milling and selling regulations, a greater rice crop in 1918 is not expected.

Remarkable Prosperity of National Banks.

Reports just compiled at the office of the Comptroller of the Currency show that the total earnings of the national banks in the United States during the year ended June 30, 1917, were \$667,406,000, the greatest ever recorded in a similar period, and that the increase over the next previous year was \$76,764,000, or 13 per cent. The net earnings were \$194,321,000, an increase of \$36,778,000, or 23 per cent. The average of net earnings on capital stock was 17.96 per cent., or 3.18 per cent. more than last year, when it was 14.78 per cent. The average of dividends declared was 11.61 per cent. on capital stock as compared with 10.76 per cent. in the previous year. The percentage of net earnings to capital and surplus was 10.52 per cent., the greatest displayed since 1873. The percentage of losses to depositors from bank failures was only 3-1000 of 1 per cent. as compared with an average of 24-1000 during the last 35 years.

Florida Sugar Syrup Enterprise.

Details have been determined and the equipment of machinery has been ordered for the sugar-syrup manufacturing enterprise which the Florida Sugar Co. will establish at Tampa. The initial daily capacity will be 60 tons for cane, and plans for next season anticipate demanding 200 tons daily for this plant. S. V. M. Ybor, manager of the company, is buying all the Florida cane obtainable and is offering to sign contracts for all the cane which growers will produce on a given acreage. This proposition will enable farmers near Tampa to deliver cane direct to the plant. A \$100,000 company will be incorporated to own and operate this new enterprise, which will be established as a result of the abandonment of beer brewing by the Florida Brewing Co. The installation of castor-oil machinery is also planned.

Southern Textile Exposition at Greenville Next Week.

All plans have been completed for the second Southern Textile Exposition, to be held in Greenville, S. C., the week of December 10-15. A meeting of the Southern Textile Association has also been arranged for the same week.

The exposition this year will be held in its own building, which has just been completed, and which provides a splendid setting for this important exposition of textile machinery, equipment, supplies and finished goods. For many years efforts have been made to have a regular representative exhibit of textile machinery and supplies in the South, but little encouragement was given the movement because many thought it would not be successful. In 1915 some of the aggressive textile mill supply men in Greenville determined to make a strenuous effort to hold a Southern exposition, and as a result in November of that year there was held in Greenville an exposition that was remarkable not only on account of the presence as exhibitors of the representative manufacturers of all of the leading lines of textile machinery and supplies, but it was also attended by the leading cotton-mill executives, officials, superintendents and foremen in the South. The attendance for the week approximated 50,000. This meeting demonstrated beyond question the demand for a regular textile exposition in the South, and out of this successful effort came a determination to hold regular expositions in alternate years.

Those behind the exposition also organized a building company and have completed, after plans by J. E. Sirrine, textile-mill engineer of Greenville, a splendid auditorium and exhibit building. Practically every foot of space in this building has been taken for the exposition next week, and practically every leading manufacturer of textile-mill machinery, equipment and supplies in the country will be represented with appropriate exhibits. A complete reference to the various exhibits will be made in December 13th issue of the MANUFACTURERS RECORD.

On the last three days of the week sessions of the Southern Textile Association will be held, opening with addresses by Mayor H. C. Harvelly of Greenville; I. B. Covington, superintendent of Florence Cotton Mills, Forest City, N. C., and Col. J. M. Davis, president Southern Textile Association, Newberry, S. C.

Other addresses during the meeting will include:

"The Patriotism of Labor," by Hon. O. Max Gardener, Lieutenant-Governor of North Carolina, Shelby, N. C.
 "The Manufacturing of Combed Yarns," by J. W. Long, superintendent Dresden Cotton Mills, Lumberton, N. C.
 "American Patriotism," by Dr. John E. White, D.D., Anderson, S. C.
 "Mill Village Development," by E. S. Draper, landscape gardener, Charlotte, N. C.
 "Dyestuffs," by C. R. Delaney of J. S. Young & Co., Hanover, Pa.
 "Helping People to Help Themselves," by James E. Carbery, garden demonstrator, Rock Hill, S. C.
 "The Need of Domestic Science Among Girls," by Miss Edna Rinehart, teacher of domestic science, P. H. Hanes Spinning Mills, Winston-Salem, N. C.
 "A Girl's Influence," by Mrs. Ethel Thomas, Charlotte, North Carolina.
 "Welfare Work Among Girls and Women of the Mill Village," by Miss Pearl Wyche, general superintendent of welfare work, Proximity Manufacturing Co., Greensboro, North Carolina.

The exposition, together with the meetings of the association, afford a splendid opportunity not only for the cotton-mill executives and officials of the South to attend, but also for them to send their superintendents and foremen, so they can study the latest improvements in textile machinery and equipment as shown by the exhibits and listen to the instructive addresses that may be made at the association meetings.

Southern Foundrymen Organize.

Through the co-operative efforts of the leading foundrymen and machine manufacturers in the South the Southern Metal Trades Association was recently organized. The purpose of this organization is indicated in the following paragraph covering its objects:

"To standardize, as far as practicable, the foundry business; to bring order out of chaos in the production of work; to maintain a high and uniform standard of product, and to secure and exchange among members such information regarding work, conditions of work, cost of production, purchase of material and requirements of consumers as will tend in the long run to reduce the cost of production and eliminate to some extent part of the unnecessary expense now attached to the business."

It is distinctly emphasized that nothing in the plan

or operation of the association shall be understood or construed as directly or indirectly restraining the freedom of any member to at all times quote such terms and prices as he pleases, each member being free to compete for business as he would be if the society did not exist.

Official headquarters have been established in the Candler Building, Atlanta, Ga., with W. E. Dunn, Jr., as secretary. Other officers of the association include: President, E. L. Nash, General Pipe & Foundry Co., Atlanta, Ga.; vice-presidents, J. A. Daughtery, Goldsboro, N. C.; J. M. Broom, Greenville, S. C.; J. M. Hollowell, Atlanta, Ga.; John P. Murphy, Jacksonville, Fla.; G. G. Britton, Anniston, Ala.; J. W. Hood, Chattanooga, Tenn.; A. J. Merrill, treasurer, Southern Iron & Equipment Co., Atlanta, Ga.

Members forming the association are:

American Machine & Manufacturing Co., Atlanta, Ga.
 Athens Foundry & Machine Co., Athens, Ga.
 Atlanta Utility Works, East Point, Ga.
 Bailey-Burruss Manufacturing Co., Atlanta, Ga.
 Briggs-Shaffner Company, Winston-Salem, N. C.
 Carolina Foundry & Machine Co., Winston-Salem, N. C.
 Carolina Machinery Co., Asheville, N. C.
 Cocker Machine & Foundry Co., Gastonia, N. C.
 Columbian Iron Works, Chattanooga, Tenn.
 Cox Foundry & Machine Co., Griffin, Ga.
 Dewey Bros., Goldsboro, N. C.
 Eureka Manufacturing Co., Lincolnton, N. C.
 Eureka Foundry Co., Chattanooga, Tenn.
 Gainesville Iron Works, Gainesville, Ga.
 General Pipe & Foundry Co., Atlanta, Ga.
 Georgia Iron Works, Augusta, Ga.
 Gibbs Machinery Co., Columbia, S. C.
 Golden Foundry & Machine Co., Columbus, Ga.
 Greenville Iron Works, Greenville, S. C.
 J. Hackett Foundry Co., Charlotte, N. C.
 Interstate Roofing & Foundry Co., Anniston, Ala.
 Lombard Iron Works & Supply Co., Augusta, Ga.
 Mutual Foundry & Machine Co., Atlanta, Ga.
 Murray Company, Atlanta, Ga.
 Mountain City Foundry Co., Greenville, S. C.
 Mecklenburg Iron Works, Charlotte, N. C.
 T. Murphy Iron Works, Jacksonville, Fla.
 John J. McDonough, Savannah, Ga.
 Ocala Iron Works, Ocala, Fla.
 William J. Oliver Manufacturing Co., Knoxville, Tenn.
 Pratt Engineering & Machine Co., Atlanta, Ga.
 Ross-Meehan Foundries, Chattanooga, Tenn.
 Salem Iron Works, Winston-Salem, N. C.
 Southern Iron & Equipment Co., Atlanta, Ga.
 Spaulding Foundry Co., Atlanta, Ga.
 Sykes Bros., Burlington, N. C.
 Tampa Shipbuilding & Engine Co., Tampa, Fla.
 Taylor Iron Works, Macon, Ga.
 J. S. Schofield's Sons Co., Macon, Ga.
 Wayne Agricultural Works, Goldsboro, N. C.
 West Point Iron Works, West Point, Ga.
 Wilkinson Machinery Co., Savannah, Ga.
 Withers Foundry & Machine Co., Atlanta, Ga.
 Wilmington Iron Works, Wilmington, N. C.

To Build 2200 Dwellings.

Continued industrial expansion at Charleston, W. Va., including the Government's plans for a \$1,750,000 projectile plant (now under construction) and a \$11,000,000 armor-plate plant, is demanding thousands of additional dwellings for that city. The Industrial Home Finance Co. of Charleston, which has an authorized capital of \$1,000,000, plans to build 2200 of these houses, and writes to the MANUFACTURERS RECORDS "We want to buy quite a deal of house-building material, such as brick, cement, plaster, lumber and other building material for the immediate erection of about 2000 homes ranging in price from \$1800 to \$4000, and about 200 workmen's houses costing from \$800 to \$1000 each. Please notify wholesale people to get in touch with us."

Completing a \$150,000 Paper Box Board Mill.

Forty tons of paper box board will be the daily output of machinery which the Tennessee Paper Mills, North Chattanooga, Tenn., is installing in its new building. This structure has been completed in accordance with plans heretofore announced, the cost of the building and its mechanical equipment for manufacturing having been reported as \$150,000. The company was incorporated with \$200,000 capital, John Staigmaier, president, and A. M. Sheperd, general manager.

The Cotton Movement.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight during the past four months was 5,604,504 bales, a decrease under the same period last year of 1,603,573 bales. The exports were 1,767,464 bales, a decrease of 706,925 bales. The takings were, by Northern spinners, 985,111 bales, a decrease of 335,517 bales; by Southern spinners, 1,680,200 bales, an increase of 21,462 bales.

Moderate Activity at Birmingham—Production Being Maintained.

Birmingham, Ala., December 3—[Special.]—While many sales of pig-iron were made during the past week the aggregate business is not heavy. The production of iron in the Southern territory is being maintained. Coal, coke and other raw-material supplies are about up to the usual mark. Deliveries of iron from this territory have been a little better lately, though far from being altogether satisfactory. The accumulated iron stocks have not been reduced any of late, but the fact that there have been no additions, though the production is greater, shows that there is good delivery.

The Alabama Company, which recently declared its initial dividend on common stock, will push improvements and developments that have been agreed upon. The repairing of one of the Ironoton furnaces is being pushed, but when it is placed in operation the sister furnace will need some work done. This company will immediately undertake to repair the No. 2 furnace at Gadsden, practically rebuilding the ironmaker. As material for furnace improvement is hard to obtain, it will be several months yet before intended repairs to the Gadsden property are completed.

J. W. Porter, general sales agent of the Alabama Company, who recently made a trip into the Middle West, reports that there will be need for more iron than will be available in what might be termed the home territory. The Southern manufacturers will receive some attention from that section.

The cast-iron pipe market is easing up some, but there is a healthy melt yet on. Municipalities are unable to place all the bonds they would like to, and as a consequence there is not the pipelaying or development in that direction as might be looked for. Foundries and machine shops in the Birmingham district have about as much as they can attend to, and are asked to bid on further work.

Steel mills are working to the maximum, practically all of the output going directly or indirectly to the Government or Allies.

The coal market is somewhat excited here. While the production of coal is greater now than it ever was, the demand has increased so that there is a noticeable shortage. Even retail yards are being regulated by the local fuel administration board, so that the tonnage to be sold families is being limited. The Government tug with barges and a small steamer came up the Warrior River the last of the past week and took 750 tons of coal in the western part of Jefferson county. Further supplies were sent the past week to parts of the South where a coal famine threatened to cause distress. Operators of mines in this district say that their men are not giving all the time at work they could, and the production could be greater if more time was put in. Conferences have been held in Washington by operators and leaders of the unions in Alabama at the office of the Fuel Administrator, looking to a settlement of differences existing in this State. These conferences will be continued next Thursday. In the meantime President G. B. McCormack of the Alabama Coal Operators' Association will present the matter to the membership here and then attend a meeting in Washington. While the miners' leaders do not demand recognition in the full sense of the word, it is asked that a number of men who were discharged because they belonged to the union, as claimed, be given employment again; that the contract system and subcontract system in the mines be eliminated; that there be a check weighman allowed; that semi-monthly pay days be established, and that arrangements be made for arbitration of all matters in dispute. While the two sides at present appear to be wide apart, the miners and mine-workers belonging to the union are being admonished to continue at work to the fullest possible extent.

Coke production is also heavier now than it has been. Sales are being made in small lots and at the Government schedule. Quite a number of the smaller consumers, small foundries and other industries are after coke, and are able to place their orders for a car of coke at a time. Old-time contracts, many of them at the \$11 and \$12.50 per ton price, are on the wane, and it will be up to the producers before long, it is understood, to take on business at the \$7 per ton rate, foundry coke.

Development at the plant of the Southern Manganese Co. will shortly be completed and placed in operation, two additional furnaces being ready for operation. This plant has been a decided success from the

start, the product selling right along at \$250 per ton under the Government schedule.

The scrap-iron and steel market in the South is brighter, and the dealers in old material are considerably more hopeful than they have been of late. Quotations show a little change, though the Government quotations announced some time back now have not been reached in this territory. Heavy melting steel, the popular commodity in scrap, brings a little better price, and the consumers in this territory are willing to give a little more than heretofore, though it cannot be said that the Federal schedule is being approached by any means. Many inquiries are coming in for scrap iron and steel, no few from Pennsylvania. The embargoes are in directions east of the Ohio River, and that means that Philadelphia business is out of the question here.

Following quotations for pig-iron and old material are given in the South:

PIG-IRON.

No. 2 foundry or No. 2 X Pittsburgh.....\$33.00
(Same differentials on other grades as existed before the Government schedule was announced.)

OLD MATERIAL.

| | |
|----------------------------|--------------------|
| Old steel axes..... | \$32.00 to \$33.00 |
| Old steel rails..... | 25.00 to 28.00 |
| Heavy melting steel..... | 22.50 to 25.00 |
| No. 1 wrought..... | 26.00 to 28.00 |
| No. 1 cast..... | 22.50 to 25.00 |
| Store plate..... | 17.50 to 18.00 |
| Old car wheels..... | 25.00 to 30.00 |
| Tramcar wheels..... | 20.00 to 25.00 |
| Machine-shop turnings..... | 17.00 to 18.00 |
| Cast-iron borings..... | 13.00 to 15.00 |

Incendiary Fire Causes Loss in Production of Birmingham Pig.

Birmingham, Ala., December 4—[Special.]—The Republic Iron & Steel Co. has blown out two of its three blast furnaces at Thomas, part of Birmingham. This was found necessary by reason of a shortage of coke brought about by the destruction by fire during the past week of the tippie and coal washer at the Sayreton mines, one of the largest mines of the company. The Sayreton mines furnished between 1700 and 2000 tons of washed coal daily for the ovens of the company at the furnace plant. A temporary tippie will be completed by the end of this week, but it will be several months before the coal washer can be rebuilt. In the meantime, effort is being made to get the coal washed or to buy coke outright so that the furnaces can be started up again. The shutting down of the two furnaces will reduce the production of iron in this section not less than 500 tons a day. The fire is believed to have been of incendiary origin. Several hundred men are out of employment temporarily.

The shutting down of the two furnaces at Thomas will affect the entire iron market in this district. This company has a large quantity of iron sold ahead, but has been in the market again recently on certain grades for the first half of the coming year. Every ton of iron that can be manufactured and every ton of coal that can be mined is in strong demand, and the loss announced will be felt.

The Trussville furnace of the Birmingham-Trussville Iron Co. will not be started until there is enough coal in sight to warrant a steady operation. The company is opening new coal mines in the western part of the county.

Extending Acreage of Long Staple Cotton.

Austin, Tex., November 28—[Special.]—The success that has been met with in growing long staple Egyptian cotton in the Red River Valley of Texas and in the irrigated districts of Arizona will cause a great increase of the acreage of that type of cotton next season. It is claimed that there are large areas of irrigable land in Texas, New Mexico and Arizona that are specially suited for the long staple variety of cotton. Recently as high as 80 cents a pound was paid for the long staple Egyptian cotton at Tempe, Ariz. Much of the cotton of the Salt River Valley region of that State has a length of nearly two inches, which makes it specially valuable for certain purposes.

In the Pima Valley of Arizona there were about 5000 acres devoted to the long staple crop this year. Some of the growers have harvested an average of one bale of 500 pounds each per acre. At 80 cents per pound, this means a revenue of \$400 per acre, exclusive of the seed, which is selling for an unusually high price.

RAILROADS

INDICATIVE OF GENERAL RAILROAD CONDITIONS.

Although Baltimore & Ohio Revenues Are Greatly Increased, Net Earnings Are Greatly Declined.

Although the operating revenue of the Baltimore & Ohio Railroad system increased by an amount not far short of a million dollars in October as compared with the same month of last year, the net operating revenue decreased considerably more than half a million of dollars according to the same comparison. Moreover, while there has been an increase in operating revenue of almost ten and a half millions during the ten months of the current year as compared with the same period of last year, the net is more than \$1,200,000 less. These facts indicate general railroad conditions following the increased cost of operation resulting from the higher pay now obtained by employees under the eight-hour law, and also from the increased cost of materials, etc.

The official figures for the month of October are as follows: Operating revenue, \$12,525,425; increase as compared with October, 1916, \$958,396; total operating expenses, \$9,742,858; increase, \$1,539,655; net operating revenue, \$2,782,567; decrease, \$581,259. The bulk of the increased cost of conducting business was under the head of transportation expenses, which increased more than 34 per cent., or \$1,381,041.

The figures for the ten months to October 31 are: Operating revenue, \$111,166,993; increase as compared with the same period of 1916, \$10,444,681; total operating expenses, \$84,347,635; increase, \$11,654,805; of which \$11,031,305 represents the increase in transportation expenses; net operating revenue, \$26,819,358; decrease, \$1,210,124.

Merger of Electric Roads Accomplished.

The Hagerstown & Frederick Railway Co. has acquired control of the Chambersburg, Greencastle & Waynesboro Street Railway Co., in fulfillment of the plan announced several months ago. The acquired line has 32 miles of line extending from Chambersburg, Greencastle, Waynesboro and other Pennsylvania points to Pen-Mar and other resorts in the Blue Ridge mountain region lying between Washington and Frederick counties in Maryland. Connection is made with the Hagerstown & Frederick Railway at Shady Grove, Pa., and the junction of these two roads will make a complete system of 112 miles of electric railways. The main line of the larger company extends from Frederick to Hagerstown, Md., but there are branches giving it a total of 80 miles. Emory L. Coblentz of Frederick is president.

Good Railroad Work at Fort Oglethorpe.

Chas. W. Howard, one of the directors of the Chattanooga Industrial Board, in a letter to the MANUFACTURERS RECORD, makes note of a good bit of railroad work, saying that the breaking up of the Second Officers' Training Camp at Chattanooga-Chickamauga Park (Fort Oglethorpe) and the distribution of the officers, numbering about 3000, was accomplished by local transportation facilities and the railroads without a hitch. To distribute so many men, the provision of sleeping-car facilities for all of them, was a task which alone might have excused some confusion and delay, but none occurred. Solid trains of from 10 to 12 sleepers leaving on different lines were familiar and also record-breaking sights. All this was accomplished in one day.

B. & O. Official Changes.

The following appointments are announced by the Baltimore & Ohio Railroad Co., taking effect December 1: O. P. McCarty, general passenger representative; W. B. Calloway, passenger traffic manager, succeeding Mr. McCarty (he was formerly general passenger agent of the lines east); W. E. Loves, general

passenger agent for the system with defined duties; he was formerly assistant general passenger agent; Archibald Fries, assistant freight traffic manager of the system; he was formerly freight traffic manager of the eastern lines; Golder Shumate, general freight agent, his former position having been assistant general freight agent.

New Equipment, Etc.

Illinois Central Railroad has ordered 50 Mikado type locomotives from the Lima (O.) Locomotive Works, and 25 switching locomotives from the American Locomotive Co., New York.

Chesapeake & Ohio Railway has ordered 450 tons of bridge steel from an Eastern plant.

Dallas (Tex.) Railway Co. will place an order for 1400 tons of seven-inch girder steel rails for street-railway improvements and extensions.

Sand Springs Railway has ordered a combination passenger and baggage car for interurban line from the G. C. Kuhlman Car Co., Cleveland, O. It will also have four other motor cars from the same builders, two open and two closed type.

Seaboard Improvements at Raleigh, N. C.

The Seaboard Air Line Railway at Raleigh, N. C., is just completing double track for about 1¼ miles and other authorized track work, which, together with the yard work completed some months ago, materially increases its facilities. There is also other work immediately in hand and nearing completion, as follows: Coal elevator, sandhouse, cinder pit, extension of round house, engine pits, and the installation of a 100-foot turntable. This latter will be finished very soon.

To Issue \$1,120,000 More Stock.

The Winston-Salem Southbound Railway Co., in which the Norfolk & Western and the Atlantic Coast Line are jointly interested, has filed at Raleigh, N. C., an amendment to its charter to increase its capital stock by \$1,120,000, making the total \$1,245,000, this to provide for operation and development. H. E. Fries of Winston-Salem, N. C., is president.

Texas State Railroad for Sale.

Bids are being invited until noon December 17 by the Board of Prison Commissioners, Huntsville, Tex., for the purchase of the Texas State Railroad, 32½ miles long from Rusk to Palestine, Tex., including all property connected with the operation of the line.

Railroad Notes.

H. C. Shears has been appointed export and import freight soliciting agent of the Southern Railway system at New Orleans, with office at the Queen and Crescent Building.

J. T. Watson of Brooksville, Ky., according to a report from Augusta, Ky., has been appointed receiver for the Brooksville Railroad, 10 miles long from Brooksville to Wellsburg, Ky. It connects at Wellsburg with the Chesapeake & Ohio Railway. Y. Alexander of Brooksville is president.

\$600,000 West Virginia Coal Development.

Baltimore capitalists have organized the West Virginia Coal & Timber Co. (which they recently incorporated with \$600,000 capital) to develop 32,000 acres of coal and timber land near Petersburg, W. Va. Details are now being given consideration, and prompt arrangements will be made for installing plants. Officers have been elected as follows: Calvin W. Hendrick, president; Emlen T. Little, vice-president; Henry P. Bridges, secretary-treasurer; all of Baltimore; Frank Chamberlain, superintendent, Petersburg, W. Va.

Good Roads and Streets

Details in regard to road and street undertakings and bond issues, briefly mentioned below, are given under the proper headings in our "Construction Department" and "New Securities," published elsewhere in this issue.

Bonds Voted.

Asheville, N. C.—City will issue \$127,000 bonds for paving streets, this being a portion of improvements heretofore announced.

Canyon, Tex.—Randall county voted \$50,000 bonds for road construction.

Danville, Mo.—Montgomery county voted \$45,000 bonds for constructing rock roads.

Fort Pierce, Fla.—St. Lucie county voted \$80,000 bonds for constructing roads.

Frankston, Tex.—City issued \$6000 bonds for street improvement.

Fulton, Mo.—Callaway county voted \$25,000 bonds for road construction.

Vernon, Tex.—Wilbarger county voted \$105,000 bonds for building highways.

Bonds to Be Voted.

Bay Minette, Ala.—Baldwin county invites bids until December 31 for constructing four-mile road.

Lockhart, Tex.—Caldwell county votes December 22 on \$200,000 bonds for building roads.

Richmond, Tex.—Fort Bend county votes December 18 on \$400,000 bonds for constructing highways.

Contracts Awarded.

Augusta, Ga.—City awarded contract for 8500 square yards of concrete paving.

Opelika, Ala.—Lee county awarded \$25,500 contract for 11-mile road construction.

Thomasville, Ga.—City awarded contract for constructing 12,000 yards of asphalt street paving, 22,000 square yards of cement sidewalks, 23,700 linear feet concrete curb and gutter and 800 linear feet of concrete curbing.

Contracts to Be Awarded.

Harrisburg, Ark.—Poinsett county has plans and specifications for constructing 17 miles of highway at a cost of \$38,000.

Kaufman, Tex.—City receives bids until December 17 for constructing 3298 square yards of street paving.

Pulaski, Va.—City invites bids until December 14 for constructing 4200 square yards of macadam and 10,000 square feet of concrete.

Spartanburg, S. C.—Spartanburg county invites bids until December 10 for construction of 15½ miles of road.

Thibodaux, La.—Lafourche parish has \$50,000 available for constructing 10-mile highway.

Walnut Ridge, Ark.—Lawrence county will construct from 90 to 100 miles of highway.

Webster Springs, W. Va.—Webster county receives bids until December 26 for building four-mile highway.

Highway Building on Pacific Coast.

Mr. Simon Benson, president of the Oregon State Highway Commission, one of the leading lumber operators of the Northwest, in strongly urging the improvement of highways as a war measure says that the statement that more men would be available for the sawmills and lumbering camps in that section if road work were suspended is incorrect, as few men who are working on the roads would be willing to go into the lumber camps. Mr. Benson takes the ground that highway work should not be suspended. With this the MANUFACTURERS RECORD fully agrees.

118 Miles of Oklahoma Highways.

Proposals are now being invited for extensive road construction in Oklahoma, 118 miles of highway being comprised in this work. Brick with concrete base, concrete, bitulithic, asphaltic concrete and bituminous macadam are all being considered, the character of con-

struction to be decided after the estimates have been considered. Plans and specifications have been completed and are now on file in the offices of the consulting engineers, Harrington, Howard & Ash of Kansas City, and of the county clerk of Okmulgee county at Okmulgee, this county undertaking this construction. The Okmulgee county commissioners will receive the proposals until December 17.

TEXTILES

Gaston Hosiery Co.

A hosiery-knitting mill will be established at Cherryville, N. C., by the Gaston Hosiery Co., which has been organized with a capital of \$100,000 by J. W. Kendrick, N. B. Kendrick and M. L. Mauney of Cherryville and A. B. Cook of Gastonia, N. C. The necessary machinery has been purchased, and manufacturing is expected to begin within sixty days.

Blanche Hosiery Mill Organized.

Organization has been perfected by the Blanche Hosiery Mills of Boiling Springs, N. C. (previously mentioned), and the daily capacity will be 150 dozen pairs of hose. The company has leased a building and installed 10 knitting machines with belt-power drive. Its capital is \$5000, and its officers are W. G. McBrayer, president; P. M. White, vice-president; Ernest White, secretary-treasurer.

Jefferson Mills' Addition.

The new Jefferson (Ga.) Mills has organized to succeed the Jefferson Cotton Mills, and the officers are: William T. Bryan, president; M. M. Bryan, treasurer; W. H. Epps, superintendent. This company's additional building will be equipped with 5000 new spindles and 256 new looms, some for these weaving machines replacing old looms. To the present production of sheeting will be added drills, twills, ducks and yarns. A total of 10,000 spindles and 320 looms will be the mill's increased equipment.

Hosiery Mill for Elizabeth City.

A daily capacity of 400 dozen pairs of hose is planned for a hosiery knitting mill which P. H. Williams will build at Elizabeth City, N. C. The mill will be of brick construction, and the building, with its equipment of machinery, will cost \$50,000. About 300 operatives will be employed.

Textile Notes.

The Crown Cotton Mills Co., Marion, N. C., will increase capital by \$100,000.

F. F. Smith, cashier of the Bank of Mebane, Mebane, N. C., plans the organization of a company to build a cotton mill.

A. G. Couch and W. D. Couch and L. J. Powers have incorporated the Couch Mills Co., Atlanta, Ga., with an authorized capital of \$1,000,000.

H. W. Wells, Gwyn Edwards and associates, Charlotte, N. C., plan the organization of a \$100,000 company to build a cotton mill.

An additional mill will be built by the Fidelity Manufacturing Co., Charlotte, N. C., the equipment to include 100 looms and other machinery.

Louis Wohlmut, Jacob Neuman and associates have incorporated the United States Woolen Mills Co., Baltimore, Md., with \$500,000 capital to manufacture woolen cloth and men's clothing.

E. M. Crow and J. L. Crow of Forest City, N. C., will establish the cotton mill lately noted as to be built by E. M. Crow and associates. They have a building which will be equipped with 432 ring spindles, with water-power drive, for manufacturing 12s to 20s yarns.

A hosiery-knitting mill capitalized at \$12,500 will be established at Maple Springs, N. C., by Ira C. Triplett of Charlotte. A 100x25-foot building has been secured and will be equipped with 25 knitting machines driven by water-power. The daily capacity will be 150 dozen pairs of hose.

MINING

\$3,000,000 Sulphur Mining Company Incorporated to Develop Valuable New Mexico Deposits.

American sulphur production will be augmented by the development of New Mexico deposits, which are claimed to be of high grade and extensive in quantity. To undertake this development the United Sulphur Development Co. has been incorporated with \$3,000,000 capital by J. J. de Praslin and Margaret de Praslin of Lake Charles, La., and J. B. Bailey of Wilmington, Del.

Outlining this new corporation's plans, J. J. de Praslin wires the MANUFACTURERS RECORD:

"Have by engineer's report 48 per cent. on surface, with 75 per cent. in deeper stratas, located in Jemez Canyon, on Santiago Grant, New Mexico, about 28 miles from Bernalillo, on Santa Fe Railroad. Have right of way 200 feet wide to sulphur bed in fee simple, and pay royalty of 50 cents per ton on sulphur. Will have to construct short railroad for transportation facilities. Will then be able to ship about 2000 tons per day."

Two Alabama Graphite Enterprises.

The Pure Graphite Co., with \$200,000 capital, and the Ashland Graphite Co., with \$100,000 capital, both of Ashland, Ala., have been incorporated to develop Alabama graphite properties. Felix I. Tarrant, Z. D. Treadwell, J. F. Winters and others are the incorporators of the Pure corporation. G. A. Mattison, C. A. Haralson, T. G. Moore and others incorporated the Ashland corporation.

New Clinchfield Coal Development.

Contracts have been awarded for the machinery to be installed in the new Dickenson county development of the Clinchfield Coal Corporation of Dante, Va. The equipment ordered will provide for a daily output of 1500 tons of coal, and G. F. Stearns of Dante is the construction engineer in charge. Clinchco is the post-office of the new plant.

New Alabama Coal Development.

About 500 tons of coal will be the daily output of mines to be equipped by the Stout's Mountain Coal Co. The coal land to be developed comprises 2780 acres at Hanceville, Ala., and 100 mine cars, a 50 to 60-ton standard-gauge locomotive, rails and other equipment will be needed. This company has organized with main office at Birmingham and the following officials: P. A. Kearney, president and treasurer; F. P. Wilbert, vice-president; Charles F. Wheelock, secretary-manager.

Extensive Cattle-Raising Project Planned for Louisiana.

New Orleans, La., December 1—[Special.]—New Orleans bankers and Louisiana sugar planters have formed the Lakeside Live Stock Co., Inc., with a capital of \$2,100,000, to engage in the live-stock raising business on the most extensive scale ever attempted in this State. The charter was filed at New Orleans this week.

The project is to be located on what was once considered almost undrainable swamps on the shores of Lake Ponchartrain, in the Manchac cypress section, near Frenier, on the Illinois Central Railroad, about 15 or 20 miles north of New Orleans.

It is understood that cattle from the drouth-afflicted districts of Texas are to make up a considerable part of the first herds.

Morris & Co. of Chicago, who recently entered the State and have become ardent boosters of Louisiana's adaptability for cattle raising, are interested. Stockholders are L. M. Pool and Bernard McCloskey of the Hibernia Bank & Trust Co., one of the largest banks in the South; Eugene A. Pharr and Frederic Wilbert, leading Louisiana sugar planters, and Ward J. Fitzgibbons, Louisiana representative of Morris & Co.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

AIRPLANE PLANTS, STATIONS, ETC.

Ky., Louisville.—Darling Air Craft Corp., capital \$25,000, chartered by Omer F. Darling, Clem W. Huggins and Henry T. Kraft.

BRIDGES, CULVERTS, VIADUCTS

Ark., Little Rock.—Pulaski County, Geo. W. Donaghey, Chrmn. Commrs., Bankers Trust Bldg., will expend \$300,000 to construct bridge 40 ft. wide between curbs, 8-ft. walks each side, double car tracks, public utility pipes, etc.; reinforced concrete, arched type construction; open bids about Jan. 15; Engr. D. B. Luten, Indianapolis, Ind.; plans and specifications at office of engineer, Little Rock. Noted in August. (See Machinery Wanted—Bridge Construction.)

S. C., Spartanburg.—Spartanburg County Highway Com., John A. Law, Chrmn., will construct 5 concrete bridges in connection with road contract No. 7; bids until Dec. 10. (See Road and Street Work; see Machinery Wanted—Road and Bridge Construction.)

Tenn., McGhee.—Fort Loudon Bridge Co., J. C. Anderson, Prest., Vnorne, Tenn., let contract to Larimer & Burkett Bridge Co., Memphis, Tenn., to construct toll bridge across Little Tennessee River at Indian Rock; steel, on reinforced concrete piers; one 238-ft. span, one 100-ft. span and trestle; cost \$18,000; Manley & Young, Archt.-Engrs., Knoxville, Tenn. (Bids noted in Oct.)

W. Va., Fairmont.—City will construct reinforced concrete bridge over Monongahela River; total length 1330 ft.; width 56 ft.; 3 main reinforced concrete arches, each having 2 ribs and clear span of 250 ft.; approaches to include number of shorter reinforced concrete girder and slab spans; roadway grade, 96 ft. above pool elevation; Board of Affairs receives bids Concrete-Steel Engineering Co., Designing Engrs., Park Row Bldg., New York, until Dec. 12; Albert J. Kern, City Clk.; Shrewsbury B. Miller, City Engr. (See Machinery Wanted—Bridge Construction.)

CANNING AND PACKING PLANTS

Fla., Sarasota.—Hammer Brand Vegetable Co., capital \$40,000, inctpd.; C. W. Chapman, Prest.; Fannie Chapman, Secy.; D. Petrousa, Treas.

Fla., Largo.—West Coast Preserving Co. organized to manufacture jellies and marmalades; has factory building and will remodel.

Ga., Moultrie.—H. J. Heinz Co. (main office, Pittsburgh, Pa.) is reported to establish salting plant.

CLAYWORKING PLANTS

Fla., Bradentown.—Pottery.—Manatee River Pottery, H. S. Glazier, Prest., will not erect building at present; has some machinery; will establish branch at St. Petersburg. Lately noted inctpd., capital \$10,000.

Fla., St. Petersburg.—Pottery.—Manatee River Pottery, H. S. Glazier, Prest., Bradentown, Fla., will establish branch plant. (See Fla., Bradentown.)

COAL MINES AND COKE OVENS

Ala., Birmingham.—Red Diamond Coal Co., capital \$5000, inctpd.; D. S. Martin, Prest.; C. E. Halls, V.-P.; J. M. Hughes, Secy.-Treas.

Ala., Hanceville.—Stout's Mountain Coal Co., 1818 American Trust Bldg., Birmingham, Ala., organized; P. A. Kearney, Prest.-Treas.; F. P. Wilbert, V.-P.; Chas. F. Wheelock, Secy.-Mgr.; develop 2750 acres; daily output 500 tons; needs equipment. Noted in Nov. (See Machinery Wanted—Mining Machinery (Coal).)

Ala., Sayreton.—Republic Iron & Steel Co., Birmingham, Ala., will rebuild tippie and washer-room reported burned at loss of \$100,000.

Ala., Jasper.—Moore & Gray Coal Co. inctpd. with \$20,000 capital.

Ala., Townley.—Supreme Mining Co., Brown-Marx Bldg., Birmingham, Ala., Jas. Bonnyman, Prest., increased capital from \$75,000 to \$100,000; develops 400 acres; daily output to 800 tons; machinery all purchased and mainly installed.

Ky., Ashland.—Pope Coal Co., capital \$1000, inctpd. by J. E. King, C. J. Kitchen and Hiram Pope.

Ky., Atto.—Barwick Coal Co., Lexington, Ky., organized; Lee Congleton, Prest.-Mgr.; J. W. Congleton, V.-P.; C. C. Congleton, Secy.-Treas.; develop 255 acres; contemplated daily capacity by June 1, 5 cars. (Lately noted inctpd., capital \$35,000.)

Ky., Blackey.—Blackey Coal Corp., capital \$3000, chartered by George S. Clark, Minnie Clark and J. D. Blair.

Ky., Emanuel.—Campbell Bros. Coal Co. inctpd. by G. M. Campbell, J. T. Campbell and B. Campbell.

Ky., Everts.—Martha Washington Coal Co., capital \$30,000, inctpd. by W. O. Turner, H. B. Turner and J. B. Carter.

Ky., Fleming.—Kentucky Headquarters Coal Co., capital \$100,000, inctpd.; K. U. McGuire, Prest., Louisville, Ky.; J. R. Slayton, V.-P., Huntington, W. Va.; purchased for development 520 acres coal lands; build railroad to mines.

Ky., Harlan.—Cherry Branch Coal Co., capital \$25,000, inctpd. by B. M. Williams, John L. Williams and J. A. Griggs.

Ky., Harlan.—Harlan Kellicka Coal Co., capital \$25,000, inctpd. by W. B. Kelly, John A. Creech and Owen Kelly.

Ky., Harlan.—Kentucky Harlan Coal Co., capital \$100,000, inctpd. by Geo. F. Ryan, John A. Creech and W. B. Landrum.

Ky., Lexington.—Verdun Coal Co., capital \$5000, inctpd. by W. T. Congleton, J. E. Stone and F. E. Kurzenkabe.

Ky., Lexington.—John B. Jewell Coal Co., capital \$12,000, inctpd. by John B. Jewell, John McMin and D. B. Berry.

Ky., Middlesboro.—Riverside Coal Mining Co., capital \$25,000, inctpd. by M. L. George, Albert Bingham and I. Osborne.

Ky., Middlesboro.—Clover Leaf Coal Co. increased capital from \$5000 to \$10,000.

Ky., Middlesboro.—Beaver Sparks Coal Co. increased capital from \$25,000 to \$50,000.

Ky., Myrie.—Florence-Mae Coal Co., Barboursville, Ky., capital \$3000, inctpd. by Robt. N. Cornett, Florence Cornett and W. H. Faulkner; develop 100 acres; daily output 40 tons; pick mining.

Ky., Morehead.—John's Run Coal Co., capital \$15,000, inctpd. by S. M. Bradley, E. H. Haggard and Robt. Young.

Ky., Paducah.—Carbondale Coal & Coke Co., capital \$150,000, inctpd. by C. M. Riker, O. C. Thompson and C. W. Craig.

Ky., Pineville.—Utility Gas Coal Co., capital \$25,000, inctpd. by E. W. Fowler, W. R. Morrison and J. M. Rosenbury.

Ky., Pikeville.—Stephenson-Stratton Coal Co., capital \$10,000, inctpd. by E. D. Stephenson, E. B. Stephenson and P. B. Stratton.

Ky., Pikesville.—Keel Coal Co., capital \$15,000, inctpd. by O. A. Stump, D. T. Keel and J. F. Pauley.

Ky., Prestonsburg.—Drift Coal Co. increased capital from \$30,000 to \$100,000.

Ky., Prestonsburg.—Prater Creek Coal Co., capital \$10,000, inctpd. by C. W. Evans, W. D. Blair and W. P. McVey.

Ky., Roxana.—Estill Coal Co. organized with \$200,000 capital by C. H. Trimble and others of Memphis, Tenn. and Lexington, Ky.; develop 5000 acres coal lands; estimated daily capacity 2000 tons.

Ky., Shamrock.—Liberty Coal Co. organized with J. P. Edmonds, Prest.; C. W. Sieveking, V.-P.; B. J. Sparks, Secy.; R. K. Judy, Treas.; Ray Mass, Mgr.; develop 75 acres; soon increase present daily capacity of 100 tons to 200 tons; F. S. Lee, Constr. Engr., Middlesboro, Ky. (Under Ky., Middlesboro, Brown Sparks Coal Co., lately noted as changing name to Liberty Coal Co.)

Ky., Whitesburg.—Eureka Elkhorn Coal Co. (change from Elkhorn Coal Co.) organized; L. F. Jackson, Prest.; S. E. Baker, V.-P.; W. W. Sargent, Secy.; H. C. Jackson, Treas.; F. S. Foster, Mgr.; develop 346 acres.

Ky., Whitesburg.—Silver Leaf Coal Co., \$30,000 capital, inctpd. by D. F. Smith, J. W. Grow, M. S. Messer and others.

Ky., Whitesburg.—West Coal Co. organized by C. A. West and others.

Mo., St. Louis.—McKinley Coal & Mining Co., capital \$1,000,000, inctpd. by Frank G. Hunleth, Jos. F. Hunleth and Wm. H. O'Brien.

Okla., Henryetta.—O. K. Coal Co., capital \$25,000, inctpd. by A. B. Sailing, R. L. Laden and E. B. Lyles.

Okla., McAlester and Featherston.—Costaso Coal & Mining Co. organized; Constantino Carigano, Prest.; Peter C. Hauser,

V.-P.; Dominic F. Antonelli, Secy.-Treas.; develop 5000 acres; daily capacity not estimated; now receiving bids on mining machinery. (See Machinery Wanted—Holsts.)

Okla., McCurtain.—East McCurtain Coal Co., capital \$25,000, inctpd. by C. M. Standard of McCurtain, R. D. Martin and E. F. Maley of El Reno, Okla.

Okla., Okmulgee.—Blackstone Consolidated Coal Co., capital \$1,000,000, inctpd. by Harlan Reed, D. B. Beyhan and A. W. Anderson.

Okla., Panama.—Cavalan Mountain Coal Co., capital \$150,000, inctpd. by Todd Denison of Oklahoma City, J. H. Hazen of Kansas City, Mo., and W. G. Colton of Pittsburg, Kan.

Okla., Panama.—Brazil River Coal Co., capital \$150,000, inctpd. by Todd Denison of Oklahoma City, K. H. Hazen of Kansas City, Mo., and W. G. Colton of Pittsburg, Kan.

Tex., Coal Hill.—Hoing Coal Co. inctpd. by G. D. Ferguson, Joe Hoing, E. Roberson and Homer Ferguson.

Va., Pulaski.—D. Gray Langhorne Coal Co., capital \$30,000, inctpd.; D. Gray Langhorne, Prest.; E. A. Langhorne, Secy.

Va., Richlands.—Richlands Coal Corp., McBain Bldg., Roanoke, Va., organized; O. L. Stearnes, Prest., Salem, Va.; J. N. Harman, V.-P., Tazewell, Va.; C. W. Compton, Secy.-Mgr., Roanoke; R. W. Kime, Treas., Salem, Va.; develop 600 acres; daily output 50 tons. Lately noted chartered, capital \$50,000. (See Machinery Wanted—Mining Machinery.)

W. Va., Fairmont.—Connellville-Fairmont Coal Co., capital \$150,000, inctpd. by K. K. Kramer, J. N. Grey, R. K. Long and others, all of Connellsville, Pa.

W. Va., Fairmont.—Greater Fairmont Investment Co. contemplates construction of coke ovens.

W. Va., Fayette.—Weewinn Coal Co., capital \$25,000, inctpd. by H. P. Thomas and E. A. Thomas of Newlyn, W. Va.; P. H. Henry of Cincinnati, Ohio, and others.

W. Va., Jarralds Valley.—Birch Fork Coal Co., Beckley, W. Va., organized; Thos. H. Wickham, Prest., Beckley; Wm. Prince, V.-P., Prince, W. Va.; W. H. File, Secy.; Ashton File, Treas.; L. C. Lilly, Mgr., Jarralds Valley; develop 2000 acres; capacity not decided; install outfit for 1700-ft. plane, boiler, drum, rope, etc. (In Nov. noted inctpd., capital stock \$150,000.)

W. Va., Kingwood.—Morgan Run Coal Co., capital \$50,000, inctpd. by Thos. Hinkle, R. L. Prosser, W. H. Sanner and others, all of Johnstown, Pa.

W. Va., Marion County.—Byrne Gas Coal Co., capital \$300,000, inctpd. by Thos., John R. and T. W. Byrne, all of Everson, Pa., and others.

W. Va., Monongalia County.—American Gas Coal Co., 408 Frick Bldg., Pittsburgh, Pa., capital \$200,000, inctpd. by F. E. Peabody, E. S. Reilly, L. P. Monahan, all of Pittsburgh, Pa., and others; will purchase mining machinery, mine timber, equipment for carpenter and blacksmith shops, and power and fanhouses. (See Machinery Wanted—Mining Machinery (Coal).)

W. Va., Morgantown.—National Fuel Co., capital \$600,000, inctpd. by Davis Elkins, J. B. Hanford, T. Frank Burk and others.

W. Va., Petersburg.—West Virginia Coal & Timber Co., capital \$600,000, organized with Calvin W. Hendrick, Prest., 1105 American Bldg.; Emilen T. Little, (Prest. Capital Service Corp.), V.-P., 1029 Munsey Bldg.; Henry P. Bridges, Secy.-Treas., 1010 Munsey Bldg.; all of Baltimore; Frank Chamberlain, Supt., Petersburg; purchased and will develop 32,000 acres coal and timber land in West Virginia. (Lately noted inctpd.)

W. Va., Princeton.—Kittanning Coal & Coke Co., capital \$5000, inctpd. by G. W. Lazenby, S. V. Straley, A. M. Sutton and others.

COTTON COMPRESSES AND GINS

Ark., Newport.—Littleton Bros. Co. will rebuild cotton gin in East Newport reported burned at loss of \$2500.

Ga., Canton.—R. N. Barron will rebuild cotton gin reported burned.

N. C., Rocky Mount.—M. C. Braswell will rebuild cotton gin reported burned at loss \$12,000.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Tex., Beckville.—Crawford Gin Co. will rebuild cotton gin reported burned at loss \$7500.

Tex., Lufkin.—Lufkin Cotton Compress Co., J. F. Christian, Mgr., lately noted to rebuild cotton compress wrecked by explosion, will buy second-hand 2000-ton compress in 30 or 60 days and erect for next season; also build sheds and increase wharf size to 45,000 sq. ft.; daily capacity of plant 750 to 1000 bales cotton; boiler plant was not injured. (See Machinery Wanted—Cotton Compress; Roofing.)

Tex., May.—J. N. Spince will rebuild cotton gin reported burned.

COTTONSEED-OIL MILLS

Ga., Statesboro.—Statesboro Oil Co. will rebuild cottonseed oil mill reported burned at loss of \$100,000.

DRAINAGE SYSTEMS

La., Morgan City.—Morgan City Co. organized, capital \$75,000, to reclaim and drain 4000 acres swamp land.

La., Thibodaux.—Subdrainage Dist. No. 1 of Drainage Dist. No. 11 voted \$10,000 bonds to construct drainage system. (Noted in October as to vote.)

S. C., Marion.—C. P. Roberts, Jr. is interested in plan to construct drainage system requiring 4 mi. canals 20 ft. wide. (See Machinery Wanted—Canal Construction.)

ELECTRIC PLANTS

Ark., Kensett.—E. D. Hardin has municipal franchise to furnish electricity for lighting and power.

Ark., Ashdown.—Ashdown Light & Ice Co. (M. B. Morgan and others, Little Rock) is reported to purchase and enlarge Ashdown Ice, Light & Power Co.'s electric-light and ice plants. (Lately noted inceptd. with \$50,000 capital.)

Ga., Cordele.—Georgia Public Service Co. purchased Cordele Electric Co.'s plant. (See Ga., Tifton.)

Ga., Tifton.—Georgia Public Service Co. purchased property of Tifton Ice & Power Co. of Tifton, and Cordele Electric Co. of Cordele; issue bonds for same; amount involved \$400,000. (Noted in August as inceptd. with \$250,000 capital by C. I. Day and others.)

Ky., Mayking.—W. C. Daniels & Son, Whitesburg, Ky., contemplating constructing electric transmission lines to Mayking, 5 mi. (Lately noted to improve and extend electric system.)

Md., Slingerly, P. O. Elkton.—T. W. Bacchus has not yet let power-house contract. (Lately incorrectly noted.)

Mo., Pleasant Hill.—Green Light & Power Co., capital \$150,000, inceptd. by L. K. Green, L. R. Green and others.

Okl., Seminole.—City votes Dec. 14 on \$500,000 bonds to build electric-light plant. Address The Mayor.

Tex., Abilene.—West Texas Utilities Co., capital \$400,000, inceptd. by A. Hargrave and Sidney G. Vigo of Dallas, J. M. Dickie, Abilene, Tex.; George W. Williamson (72 W. Adams St.), Chicago, and others; acquires plants of Abilene (Tex.) Gas & Electric Co., Cisco (Tex.) Gas & Electric Co., Stamford (Tex.) Gas & Electric Co., Baird (Tex.) Gas & Electric Co., and Hamlin (Tex.) Gas & Electric Co.

Tex., Fort Worth.—Fort Worth Power & Light Co. increased capital from \$3,860,000 to \$4,360,000; expend about \$500,000 (amount of capital increase) for improvements; erect additions to building, ordered additional equipment, etc.

Tex., Marshall.—East Texas Utilities Co., capital \$300,000, inceptd. by J. M. Dickie, J. E. Meadows and F. A. Matthes, all of Abilene, Tex.; George W. Williamson (72 W. Adams St.), Chicago, and others; acquires property of Jefferson (Tex.) Ice & Light Co., Marshall (Tex.) Electric Co., and Longview (Tex.) Ice & Light Co.

Va., Hopewell.—City will issue \$75,000 bonds to construct electric-light, water and sewer system and equip fire department. Address The Mayor.

Va., Lynchburg.—Retail Merchants' Assn. contemplates installing electric plant.

W. Va., Charleston.—West Virginia Water & Electric Co. contemplates increasing capital by \$1,000,000.

W. Va., Fairmont.—Greater Fairmont Investment Co. plans to build 10,000 K. W. electric-generating station.

W. Va., Wheeling.—Beech Bottom Power Corp., capital \$400,000, chartered by Allen E. Moore and Geo. F. Jebbott of New York, Alfred F. McCabe, F. H. Bulethorn and S. C. T. Dood of Brooklyn, N. Y.

FLOUR, FEED AND MEAL MILLS

Ky., Paducah.—Paducah Flour & Commission Co., capital \$3000, inceptd.; J. S. Bondurant, Pres.; Clark A. Bondurant, V.P.; Robt. Bondurant, Secy.; C. E. Jennings, Treas.

N. C., Kenly.—J. W. Darden will organize company to build flour mill; reported cost \$25,000 to \$30,000.

N. C., Rougemont.—W. A. Carver has purchased machinery for 50-bbl. roller flour mill noted in August.

Tenn., Nashville.—Monarch Grain & Milling Co., capital \$15,000, inceptd. by Jos. F. Wilson, J. D. Scott, Jas. Pendergast and others.

Tenn., Talbott.—Acme Milling Co. will install corn mill; daily capacity, 2500 bu.; manufacture corn meal, corn flour, grits, etc.; purchased machinery.

Tex., Dallas.—Morton Milling Co., capital \$500,000, inceptd. by E. W. Morton and W. B. Newsome of Dallas, J. Perry Burrus, F. B. Pope and L. A. Scott, all of McKinney, Tex.

Tex., Jasper.—Jasper Milling Co. inceptd. by Argus Young, James Brasel, J. F. Carlton, L. W. Clark and others; capital \$3000.

Tex., Galveston.—Texas Star Flour Mills increased capital from \$500,000 to \$1,500,000.

FOUNDRY AND MACHINE PLANTS

Fla., Vero.—Blacksmith Shop.—St. Lucie Lumber & Supply Co. will erect blacksmith shop.

THE OFFICIAL PROPOSAL ADVERTISEMENTS

Appear This Week On Page 107

Notices of bond sales, construction and improvement contracts to be let, equipment and supplies to be purchased, franchises offered, etc., inserted in this department bring bids from the most important bond buyers, investors, financial institutions, contractors, engineers, architects, manufacturers, and supply houses throughout the country.

Rate 25 cents per line per insertion.

The PROPOSAL department goes to press 9 A. M. Wednesday for the issue of the following day. If you cannot mail advertisement in time for any particular issue please wire copy by night letter.

Send for booklet of testimonial letters from public officials who have used the PROPOSAL department of the Manufacturers Record, for bond sales, construction work, etc.

Ky., Louisville.—Electric Tools.—Reciprocating Tool Co., capital \$10,000, inceptd. by Jas. K. Jarvis, F. L. Robinson and J. J. Roberts.

Md., Baltimore.—Blacksmith Shop.—Bartlett Hayward Co., Scott and McHenry Sts., will erect 1-story blacksmith shop; Morrow Bros., Contrs., Fidelity Bldg., Baltimore; Parker, Thomas & Rice, Archts., Union Trust Bldg., Baltimore.

Md., Baltimore.—Stoves.—A. Weiskittle & Son Co., Lombard and Twelfth Sts., Highlandtown, will rebuild 3 buildings of stove and enamelware plant reported burned at loss of \$50,000.

Mo., Kansas City.—Straw Spreader.—Simplex Spreader Mfg. Co. of Detroit, Mich., is reported to establish plant to manufacture straw spreader by which straw instead of being burned is returned to soil.

S. C., Spartanburg.—Machine Shop and Assembling Plant.—Lummus Machinery Co. will erect building in rear of plant at 211 Magnolia St.; one floor for shop and assembling plant.

Tenn., Jackson.—Engines and Boilers.—Southern Engine & Boiler Mfg. Co. increased capital from \$500,000 to \$800,000.

W. Va., Pennsboro.—Oil-well Tools.—Kerr Bros. Machine Co., Chas. J. Kerr, Mgr., will erect 36x60-ft. \$1500 machine shop; manufacture and repair oil-well tools; noted in October. (See Machinery Wanted—Tank; Belting.)

GAS AND OIL ENTERPRISES

Ky., Johnson County.—Eastern Kentucky Oil Co., capital \$250,000, inceptd. to develop 10,000 acres lease of oil lands in Johnson, Magoffin, Martin and Estill counties; Jas. I. Miller, Pres.; Axel Meadows, V.P.; S.

H. Bowman, Secy.; E. S. Pugh, Treas.; all of Huntington, W. Va.

Ky., Louisville.—Champion Oil, Gas & Mineral Co., capital \$35,000, inceptd. by Sam Lee Bell, Dunlap Wakefield and C. I. Hitchcock.

Ky., Louisville.—Warren Oil Co., capital \$50,000, inceptd. by H. O. Gray, W. F. Blackford and H. H. Huffaker.

Ky., Winchester.—Traders Oil Co., capital \$50,000, inceptd. by A. W. Mann, J. B. Thomas and B. S. Wilson.

Ky., Irvine.—United States Oil & Fuel Co. of Kentucky, capital \$1000, inceptd. by Hugh Riddell, H. C. Jordan and Joseph Dunn.

Ky., Winchester.—Gaines Oil Co., capital \$50,000, inceptd. by Clyde Gaines, N. Roll Ratliff and Ronald C. Oldham.

Md., Baltimore.—Oil and Gasoline Storage Depot.—Standard Oil Co., Pier 2, Pratt and Commerce Sts., will erect gasoline and oil-storage depot on Hanover St.

Okl., Ardmore.—Sparks Oil & Developing Co., capital \$100,000, inceptd. by A. T. West of Ardmore, J. I. Murry and J. R. Hickman of Colgate, Okla.

Okl., Bartlesville.—Oilfields Corporation, capital \$400,000, chartered by D. F. Bucher of Bartlesville, E. B. Carter and W. N. Carter of Tulsa, Okla.

Okl., Beggs.—Hart Oil & Gas Co., capital \$25,000, inceptd. by A. H. Hart, Jas. Hoover and S. James.

Okl., Blackwell.—Union Royalty Co., capital \$250,000, inceptd. by J. W. Morse, Chas. B. Bersche and H. B. Spencer.

Okl., Blackwell.—Gasoline.—Roscoe C. Ray of Wichita, Kans. (Secy. Oil Products & Refining Co.), is considering installation of casing-head gasoline plant.

Okl., Oklahoma City.—Oil Refinery.—Real Oil Co., Walter Benson, 306 Patterson Bldg., Pres., lately noted inceptd., capital stock \$150,000, is drilling for oil and will build refinery. (See Machinery Wanted—Oil-refinery Material.)

Okl., Okmulgee.—Mack Drilling Co., capital \$10,000, inceptd. by Wm. C. Newman and others.

Okl., Sapulpa.—Jackpot Oil & Gas Producing Co., Berryhill Bldg., Frank P. Strickland, Mgr., opens bids within 30 days for drilling, piping and construction of rig; wants bids on pipe. Lately noted inceptd., capital \$100,000, by O. M. Ireland, Sapulpa; B. F. Buffington, Enid, Okla., and others. (See Machinery Wanted—Pipe.)

Okl., Tulsa.—Albello Oil & Gas Co. inceptd. by B. C. Beane and Jos. B. Allan of Tulsa, and A. T. Threadgill of Oklahoma City; capital \$35,000.

Okl., Tulsa.—Rush Petroleum Co., capital \$25,000, inceptd. by G. E. Williamson and others.

Okl., Tulsa.—Livingston-Fox Oil Corp., capital \$100,000, chartered by Herman Livingston of Tulsa, William Fox and C. S. Levin of New York.

Okl., Tulsa.—George Drilling Co., capital \$50,000, inceptd. by E. B. George and others.

Tex., Nocona.—Oil Refinery.—Beaver Valley Oil & Refining Co. (Frank Beauman interested), Waurika, Okla., capital stock \$1,000,000, will establish lately-noted refinery. (See Machinery Wanted—Oil Refinery.)

Tex., Wichita Falls.—Mora Oil & Gas Co., capital \$60,000, inceptd. by R. W. Peters, S. J. Ashmore and others.

Va., Richmond.—Eastern Oil Corp. increased minimum capital from \$20,000 to \$25,000.

W. Va., Huntington.—Empire Oil & Gas Co.; capital \$25,000, inceptd. by J. B. Marshall, J. B. White, Jas. E. Hart and others.

HYDRO-ELECTRIC PLANTS

N. C., Rougemont.—W. A. Carver will install equipment to convey electricity 1 to 2 mi. (See Machinery Wanted—Electrical Equipment.)

ICE AND COLD-STORAGE PLANTS

Ala., Florence.—Armour & Co. (main office, Chicago) will establish distributing plant; has let contract to remodel building for cold storage.

Ark., Ashdown.—Ashdown Light & Ice Co. (M. B. Morgan and others, Little Rock) is reported to purchase and enlarge Ashdown Ice, Light & Power Co.'s ice and electric-light plants. (Lately noted inceptd. with \$50,000 capital.)

Fla., Wildwood.—Wildwood Crate & Ice Co., capital \$75,000, inceptd.; W. H. McTainey, Pres.; C. D. Bridges, V.P.; W. D. Gable, Secy.-Treas.

Ga., Tifton.—Georgia Public Service Co. purchased property of Tifton Ice & Power Co. (See Electric Plants, Ga., Tifton.)

Tex., San Antonio.—Missouri, Kansas & Texas Ry., F. Ringler, Chief Engr., Dallas, is reported as planning erection of ice and cold-storage plant to cost \$100,000.

IRON AND STEEL PLANTS

W. Va., Fairmont.—Steel Plant.—Greater Fairmont Investment Co. negotiating for establishing of steel plant by \$1,500,000 company.

IRRIGATION SYSTEMS

La., Lake Charles.—Farmers' Land & Canal Co., W. P. Weber, Pres., and H. W. Lanz, Secy., capital stock \$250,000, will expend \$50,000 on repairs to canal machinery on rice lands (14,000 acres) 5 mi. from Lake Charles; advises Manufacturers Record: Will reinhabit this property, lately idle; repair plants already installed; contemplate purchase of new machinery next summer to double capacity of plant. (See Land Developments.)

LAND DEVELOPMENTS

Ala., Birmingham.—Overbrook Land Co., capital \$50,000, inceptd.; Walter B. Fowlkes, Pres.; J. D. Dabney, Jr., Secy.-Treas.

Ala., Birmingham.—Alabama Realty Development Co., capital \$10,000, inceptd.; Z. L. Nabers, Pres.; W. H. Hassinger, V.P.; E. L. Brown, Secy.-Treas.

Ala., Birmingham.—Derzis & Pappageorge Fruit Co., capital \$5000, inceptd.; Nick Derzis, Pres.; Geo. Pappageorge, V.P.; Geo. Kontroulakis, Secy.-Treas.

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La., Lake Charles.—Farmers' Land & Canal Co., W. P. Weber, Pres., and H. W. Lanz, Secy., capital stock \$250,000, purchased lately-noted acreage (about 14,000) 5 mi. from Lake Charles; rice lands; will resume development of the lands, lately idle. (See Irrigation Systems.)

La., Monroe.—John P. Parker, G. G. Weaks, J. A. Smith, J. M. Manning and others organized company with reported capital of \$100,000 to develop about 1000 acres 3 mi. from Monroe in Ouachita River Valley; plans to divide into small tracts for colonization.

N. C., Raleigh.—Highland Terrace Fruit Co., capital \$25,000, inceptd. by C. E. Mitchell, J. M. Broughton, Jr., and A. L. Bashford.

N. C., Southern Pines.—Highland Terrace Fruit Co., capital \$50,000, inceptd. by S. B. Richardson, Mrs. F. S. Herr and others.

N. C., Yadkinville.—Sunny South Development Co., capital \$1,000,000, inceptd. by W. L. Kelly, W. H. Godfrey and S. C. Williams.

Va., Richmond.—Ashpole Land & Cattle Co., capital \$100,000, chartered; Cyrus W. Beale, Pres.; Lewis C. Williams, Secy.-Treas.

Va., Richmond.—Refuge Plantation, capital \$100,000, inceptd.; Jas. Mullen, Pres.; Lewis C. Williams, Secy.-Treas.

Va., Winchester.—Frederick Land Corp., capital \$50,000, chartered; A. L. Baker, Pres.; Harry Hardy, Secy.

W. Va., Fairmont.—Greater Fairmont Investment Co. plans industrial and residential city development in Pleasant Valley; plans to include building 10,000 K. W. electric-generating station, electric railway, dwellings, etc.

LUMBER MANUFACTURING

Fla., Live Oak.—The Dowling Co., capital \$500,000, inceptd.; W. H. Dowling, Pres.; O. O. McCollum, V.-P.; J. H. Dowling, Secy.-Treas.

Fla., Oldsmar.—J. Bornstein will build sawmill of 25,000 ft. daily capacity. (Lately noted.)

La., Colfax.—Iatt Lumber Co. will rebuild sawmill burned at loss of \$50,000.

La., Lake Charles.—Krause & Managan purchased half interest in 3000 acres pipe and hardwood timber land between Lake Charles and Sabine River.

Miss., Sebastopol.—Bonita Lumber Co., Meridan, Miss., increased capital from \$25,000 to \$50,000, and changed location from Meridan to Sebastopol.

N. C., Golden.—Wright-Bachman Lumber Co., Indianapolis, Ind., purchased 20,000 acres timber land and will build portable sawmill.

N. C., Hayne.—Hayne Lumber Co., capital \$500, inceptd. by Alex. and W. J. Newton and others.

N. C., Osgood.—F. R. Snipes Lumber Co., capital \$50,000, inceptd. by F. R. Snipes, M. L. Snipes and others.

N. C., Sanford.—Palmer Lumber Co., capital \$50,000, inceptd. by H. A. Palmer, L. B. Wilkins and others.

Okla., Chickasha.—Ninnekah Grain & Lumber Co., capital \$10,000, inceptd. by M. F. Ikard of Chickasha, D. H. Stephens, Ninnekah, Okla., and S. A. Forsyth, Norgo, Okla.

Tex., Grayburg.—Graydon Hardwood Co., capital \$40,000, inceptd. by Wm. Graydon and W. P. Wallace of Grayburg, and K. R. Reynolds of Houston, Tex.

Tex., Shepherd.—W. E. Franklin will construct hardwood mill of 20,000 ft. daily capacity; manufacture oak, gum, magnolia, elm, cottonwood, cypress and Virginia pine.

W. Va., Petersburg.—West Virginia Coal & Timber Co., capital \$600,000, organized with Calvin W. Hendrick, Pres., 1105 American Bldg.; Emilen T. Little, (Pres. Capital Service Corp.), V.-P., 1029 Munsey Bldg.; Henry P. Bridges, Secy.-Treas., 1016 Munsey Bldg.; all of Baltimore; Frank Chamberlain, Supt., Petersburg; purchased and will develop 32,000 acres coal and timber land in West Virginia. (Lately noted inceptd.)

MINING

Ala., Ashland.—Graphite.—Pure Graphite Co. inceptd. by Felix I. Tarrant, Z. A. Treadwell, J. F. Winter and others; capital \$200,000.

Ala., Ashland.—Graphite.—Ashland Graphite Co. inceptd. with \$100,000 capital by G. A. Mattison, C. D. Haralson, T. G. Moore and others.

Ark., Little Rock.—Lead and Zinc.—Magnolia Mining Co., capital \$50,000, inceptd. by

W. E. Kenner, Ben F. Renner, E. S. Hallett and others.

Fla., Ocala.—Lime.—Ocala Lime & Mfg. Co., capital \$150,000, inceptd.; Jacob H. Sparklin, Pres.; Chas. O. Knight, V.-P.; Geo. S. Childs, Secy.; John A. Williams, Treas.

La., Lake Charles.—Sulphur.—United Sulphur Development Co. inceptd. with \$3,000,000 capital by J. J. de Praslin and Margaret de Praslin of Lake Charles, and J. B. Bailey of Wilmington, Del. J. J. de Praslin wires Manufacturers Record: Have by engineers' report 48 per cent. on surface with 75 per cent. in deeper stratas located in Jemez Canyon of Santiago Grant, New Mexico; about 28 mi. from Bernalillo on Santa Fe R. R.; have right of way 200 ft. wide to sulphur bed in fee simple and pay royalty of 50 cents per ton on sulphur; construct short railroad for transportation facilities; then be able to ship 2000 tons per day.

Mo., Benton.—Harris Land & Development Co., capital \$10,000, inceptd. by Maurice V. Harris, Lee J. Weiman and Martin G. Tirnstein.

Mo., Duenweg.—Lead and Zinc.—Scott Mining Co. plans to install electric mill of 200 to 300 tons capacity to replace plant reported burned at loss of \$50,000.

Mo., Duenweg.—Lead and Zinc.—Scott Mining Co. will rebuild 500-ton mill reported burned at loss of \$50,000.

Mo., St. Louis.—Iron Ore.—Pontiac Iron & Land Co., capital \$300,000, inceptd. by Ira J. Hoover, L. A. Newton and Jos. F. Lindsey.

Okla., Ardmore.—Spring River Mining Co., lately noted organized, capital \$20,000, will operate plant with postoffice at Baxter Springs, Kans.; main office address, Ardmore; will begin test holes Dec. 5; shaft, later; afterward erect mill; W. F. Whittington, Pres.; A. Murck, V.-P.; Guy T. Lawrence, Secy.-Treas.; E. F. Lawrence, Supt.

Okla., Elk City.—Lead and Zinc.—Elk-Isom Mining & Development Co., capital \$15,000, inceptd. by W. S. Isom, C. S. Gikerson and J. F. Merrill.

Okla., Chickasha.—Lead and Zinc.—Mineral Lead & Zinc Co., capital \$200,000, inceptd. by W. L. Bonnell, Clark Trammell and Ed. Bitsche.

Okla., Centralia.—Lead and Zinc.—Centralia Mining Co., capital \$10,000, inceptd. by J. W. White, Charley Davis and C. C. Pitts.

Okla., Holdenville.—Lead and Zinc.—Boot Jack Mining Co. inceptd. by Jas. A. Scott, C. J. Hahn and Grace E. Scott Hahn, all of Holdenville, Okla.; capital \$25,000.

Okla., Miami.—Zinc.—Carnegie Mining & Milling Co. will build 500-ton zinc mill.

Okla., Miami.—Lead and Zinc.—Allied Lead & Zinc Co. inceptd. by L. R. Ellis, M. A. Cassidy and E. H. McHenry, all of Wagoner, Okla.; capital \$200,000.

Okla., Miami.—Lead and Zinc.—Pioneer Lead & Zinc Co. will erect 600-ton mill on 40-acre lease.

Okla., Miami.—Metals.—Consolidated Metals Co., capital \$300,000, inceptd. by J. W. Holman, R. L. Putnam and S. T. McBe.

Okla., Miami.—Lead and Zinc.—Guilford Lead & Zinc Co., capital \$10,000, inceptd. by John S. Cheyne and others.

Okla., Miami.—East Side Mining Co., capital \$75,000, inceptd. by J. E. Coats, Ben Labelsky and R. L. Beck.

Okla., Miami.—Lead and Zinc.—Sunrise Mining Co., capital \$150,000, inceptd. by Jno. M. Wilson of Miami, S. E. Samuels of Pryor, Okla., and G. R. Gordon of Wagoner, Okla.

Okla., Miami.—Ontario Mining Co., capital \$10,000, inceptd. by A. B. Cline and G. I. Dorrance of Miami, and Elmer E. Klein of Oklahoma City, Okla.

Okla., Miami.—Lead and Zinc.—Longhunt Mining Co., Commerce Bldg., organized with \$250,000 capital.

Okla., Miami.—Lead and Zinc.—Seneca Fault Mining Co., capital \$100,000, inceptd. by Todd Denison of Oklahoma City, J. H. Hazen, Kansas City, Mo., and W. G. Colton, Pittsburg, Kan.

Okla., Miami.—Zinc.—Wyandotte Zinc Co., capital \$100,000, inceptd. by J. R. Case of Miami, W. A. Crane, Tar River, Okla., and A. W. Estes of Palacios, Tex.

Okla., Okmulgee.—Lead and Zinc.—Okmulgee Lead & Zinc Syndicate inceptd. by A. R. Winfrey, T. T. Beeler and Clark F. Bryan; capital \$50,000.

Okla., Oklahoma City.—Lead and Zinc.—Horseshoe Lead & Zinc Co. inceptd. by Ed. S. Vaught, Robt. Snyder and Chas. A. Parsons; capital \$100,000.

Okla., Oklahoma City.—Lead and Zinc.—Lawyers' Mining Co., capital \$150,000, inceptd.

by E. G. McAdams, D. A. Richardson and J. B. Dudley.

Okla., Oklahoma City.—Leading Mining & Milling Co., 122½ W. Main St., organized; S. Pollack, Pres.; M. F. Lewis, V.-P.; J. V. Cruzan, Secy.; A. Smith, Treas.; H. E. Schuler, Mgr.; develop 20 acres. (In November noted inceptd., capital \$100,000.)

Okla., Oklahoma City.—Lead and Zinc.—Zuni Lead & Zinc Co., capital \$25,000, inceptd. by W. A. Smith, E. R. Clemens and J. M. Hayes.

Okla., Picher.—Lead and Zinc.—Keltner Mining Co. will install 500-ton concentrating plant; purchased equipment.

Okla., Ponca City.—Campbell Drilling Co. inceptd. by C. G. Campbell, J. E. Sanders and M. P. Long; capital \$10,000.

Okla., Quapaw.—Lead and Zinc.—Eleven O'clock Mining Co. organized; Roy Nelson, Pres.; A. A. Pinegar, V.-P. and Mgr.; develop 20 acres; date of opening mining machinery bids not set; J. A. Gray, Constr. Engr., Quapaw. Lately noted. (See Machinery Wanted—Mining Machinery.)

Okla., Shawnee.—Lead and Zinc.—Rich Strike Mining Co. inceptd. by A. O. Baker, Shawnee; C. H. Daniels, Tulsa; D. L. Avery, Dallas, Tex.; capital \$200,000.

Okla., Tar River.—Lead and Zinc.—Beulah B. Mining Co., Tulsa, Okla., organized; J. R. Cole, Jr., Pres.; J. H. McBirney, V.-P.; W. E. Breach, Secy.-Treas.; develop 20 acres; 250-ton mill; has machinery, cost about \$30,000. (Lately noted inceptd., capital \$200,000.)

Okla., Tulsa.—Lead and Zinc.—Ak-Sar-Ben Mining Co., capital \$150,000, inceptd. by J. R. Richards, H. F. Kasey and Nellie C. Richards.

Okla., Tulsa.—Lead and Zinc.—Grand Island Mining Co., capital \$150,000, inceptd. by J. R. Richards, H. F. Kasey and Nellie C. Richards.

Okla., Tulsa.—Lead and Zinc.—Omaha Mining Co., capital \$150,000, inceptd. by H. F. Kasey, J. R. Richards and Nellie C. Richards.

Okla., Tulsa.—Lead and Zinc.—Weona Lead & Zinc Co., capital \$300,000, inceptd. by H. M. Welliver, C. C. Brown and H. R. McCreary.

Okla., Vinita.—Lead and Zinc.—Silver Crown Mining & Royalty Co., capital \$150,000, inceptd. by W. T. Crossen, C. T. Jordan and N. L. Linebaugh.

Tex., Batesville.—Polk Rayon Mining Co., \$100,000 capital, inceptd. by J. B. Fisher, F. M. Thurmon and G. E. Roberts.

Va., Attaway.—Manganese.—Virginia Manganese Mining Corp., Bluefield, W. Va., organized with J. W. Ruff, Pres.; D. E. French, V.-P.; J. L. Phillips, Secy.; develop 850 acres. (Lately noted chartered, capital \$50,000.)

Va., Buffalo Ridge Springs.—Copper.—Buffalo Ridge Development Co., Lynchburg, Va., organized to develop 74 acres copper lands near Buffalo Ridge Springs in Amherst County.

Va., Ivanhoe.—Lead and Zinc.—Helen Mineral Co. organized; S. L. Boggs, Pres. and Gen. Mgr.; Chas. Sommerhalder, V.-P.; J. W. Rloxham, Secy.-Treas.; develop 125 acres; daily output 100 tons; mine and mill lead and zinc ores. (See Machinery Wanted—Mining Machinery.)

MISCELLANEOUS CONSTRUCTION

Ark., Newport.—Levees.—Newport Levee Commission is having plans prepared by Morgan Engineering Co. of Memphis, Tenn., for levee system to protect Newport and 75 acres north of city from overflow of White River; plans to raise natural levee formed by railroad embankment at least 3 ft. higher to protect river side; probably require further construction on southside to care for backwater; use earthworks with concrete construction where railway junctions and similar conditions render earth insufficient; surveys being made; T. J. Gregg, Pres., and C. R. Hite, Secy., Newport Levee Dist.

La., New Orleans.—Levee.—Louisiana State Board of Engrs., Frank M. Kerr, Ch. State Engr., 213 New Orleans Court Bldg., asks bids until Dec. 19 to construct new levee in Caddo parish, Red River, right bank; 12-mi. bayou dike; contents about 65,000 cu. yds. (See Machinery Wanted—Levee Construction.)

Md., Baltimore.—Docks, etc.—War Department, Washington, D. C., is reported to build docks, wharves, etc., in connection with \$5,000,000 expenditure for ordnance depot at Stahl's Point on Curtis Creek.

Tex., Lufkin.—Wharf.—Lufkin Cotton Com-

press Co., J. F. Christian, Mgr., will increase wharf capacity to 45,000 sq. ft. (See Cotton Compresses and Gins.)

MISCELLANEOUS ENTERPRISES

Ala., Mobile.—Printing Plant.—John J. McMahon of Powers Printing Co. will erect printing plant.

Ala., Montgomery.—Transfer.—Court Street Transfer Co., capital \$300, inceptd. by Morris M. Wolff, Belle R. Wolff and Leopold Strauss.

Fla., Jacksonville.—Fishery.—Fant Fisheries, capital \$25,000, inceptd.; F. D. Fant, Pres.; C. O. Whitney, V.-P.; B. F. Trenary, Secy.-Treas.

Fla., Vero.—Plumbing Shop.—Louis N. Deleman will establish plumbing shop; erect building; foundation completed.

Ga., Savannah.—Lumber Vulcanizing.—Texas Lumber Vulcanizing Corp., chartered with \$50,000 capital by Lambert H. Fish of Savannah, Jas. F. Doran of Jacksonville, Fla., and Fred K. Fish, Jr. of New York.

Ky., Louisville.—Publishing.—New World Publishing Co., Kenyon Bldg., capital \$25,000, inceptd. by E. G. Parrish, Otto Ufer and Albert Schmutz; E. G. Parrish, Pres.; publish socialist paper and booklets.

Ky., Winchester.—Construction.—Codell-Byars Construction Co., capital \$10,000, inceptd. by J. C. Codell, W. G. Byars and J. R. Calloway.

La., Frenier.—Live Stock.—Lakeside Live Stock Co. chartered with \$2,100,000 capital by L. M. Pool and Bernard McCloskey, both of Hibernia Bank & Trust Co.; Eugene A. Pharr, Frederic Wilbert and Ward J. Fitzgibbons, all of New Orleans; raise live stock; utilize lands on Lake Pontchartrain, 20 mi. from New Orleans; improvements to include drainage of swamps.

Mo., St. Louis.—Dairy.—Fairview Farm & Dairy Co., capital \$150,000, inceptd. by T. H. Forrester, N. J. Bordeaux and Francis Kirsch.

Mo., Kansas City.—Hay Compress.—Belfast Investment Co. (W. S. Dickey and others) will install \$50,000 hay compress in warehouse. (See Contracts Awarded—Warehouses.)

Okla., Chickasha.—Grain Elevator.—Ninnekah Grain & Lumber Co., capital \$10,000, inceptd. by M. F. Ikard and others.

Okla., Miami.—Construction.—Golden Rod Construction Co., capital \$500, inceptd. by A. C. Wallace of Miami, Edgar Z. Wallower of Oklahoma City, and F. C. Wallower of Joplin, Mo.

Okla., Purcell.—Publishing.—Purcell Record Co., capital \$10,000, inceptd. by J. E. Crowder, H. M. Davis and C. T. Rice.

Tenn., Nashville.—Grain Elevator.—Monarch Grain & Milling Co., capital \$15,000, inceptd. by Jos. F. Wilson, J. D. Scott, Jas. Pendergast and others.

Tenn., Shelbyville.—Printing Plant.—W. A. Frost, owner, will erect lately-noted structure for Shelbyville Gazette printing and office building; 24x50 ft.; fireproof; 2 stories and basement; brick, stone and reinforced concrete; front and back walls erected; receive bids for 2 floors and fireproof roof. (Lately noted.)

Tex., Frijoles.—Cattle.—D. Ranch Cattle Co., capital \$50,000, inceptd. by Vince Baier and L. C. Rinaire of Frijoles, and K. H. Yates of El Paso, Tex.

Tex., Port Arthur.—Laundry.—Port Arthur Laundry Co., 4th and Fort Worth Sts., organized; G. H. Shepherd, Pres.; F. W. Shepherd, V.-P.; both of Beaumont; H. S. King, Secy.; A. E. Shepherd, Mgr.; both of Port Arthur; erect \$13,000 50x140-ft. ordinary-construction building; purchased machinery costing \$25,000. Construction contract lately noted let to McDaniel & Harford, Port Arthur; plans by F. W. Steinman, Beaumont. (See Machinery Wanted—Electrical Equipment.)

Tex., Yoakum.—Grain.—Merchants' Grain Co. increased capital from \$9000 to \$12,000.

Va., Hampton.—Towing.—Hampton Towing Corp., capital \$25,000, chartered; H. C. Alexander, Pres., Hampton; W. F. Collins, Secy., Newport News, Va.

Va., Hopewell.—Fire Department Equipment.—City will issue \$75,000 bonds to equip fire department and construct water, electric-light and sewer systems. Address The Mayor.

MISCELLANEOUS FACTORIES

Ala., Birmingham.—Comforts.—Perfection Mattress & Spring Co., T. M. Jackson, Pres., contemplates addition to comfort-making de-

partment to present plant. (See Machinery Wanted—Comforters (or Quilts) Machinery.)

Ala., Oneonta—Clothing.—Albritton Clothing Co., capital \$10,000, incptd. by E. S. Albritton and others.

Ala., Florence—Glass.—F. M. Boyer of Indiana (care of Florence Chamber of Commerce) is reported as considering establishment of glass factory.

Ala., Florence—Powder.—E. I. du Pont de Nemours & Co., Wilmington, Del., has, it is rumored, purchased site for erection of large powder factory.

Fla., Jacksonville—Films.—Superb Film Corporation, capital \$250,000, chartered; H. A. Kelly, Pres.; F. R. Johnston, V.-P.; Malcolm McClellan, Secy.-Treas.

Fla., Jacksonville—Naval Stores.—Baldwin-Lewis Co., capital \$200,000, incptd.; J. G. Lewis, Pres.; W. P. Baldwin and H. M. Wilson, V.-Ps.; A. Lee Powell, Secy.-Treas.

Fla., Miami—Awnings and Tents.—Thomas Awning & Tent Co., capital \$25,000, incptd.; E. T. Thomas, Pres.; G. F. J. Sundstrum, V.-P.; V. L. Thomas, Secy.-Treas.

Fla., Ocala—Farm Products, etc.—Marion Products Co., capital \$25,000, incptd.; A. A. Winner, Pres.; D. S. Welch, V.-P.; J. J. Gerig, Treas.; L. M. Murray, Secy.

Fla., Tampa—Syrup.—Florida Sugar Co., capital \$100,000, will be incptd. by S. V. M. Ybor and others; install syrup plant with initial capacity of 60 tons cane; ordered equipment; later plans to increase capital, install refinery and enlarge plant as to require 200 tons cane daily; also considering installation of castor-oil plant. (Florida Brewing Co., S. V. M. Ybor, Mgr., lately noted to remodel brewery as sugar refinery.)

Fla., Tarpon Springs—Sugar.—Jno. R. Groene and Northern capitalists plan to build \$250,000 sugar mill.

Ga., Atlanta—Bakery.—American Bakeries Co., capital \$600,000, incptd.; H. Makchor, Pres.; Atlanta; Wm. Finch, V.-P.; Birmingham, Ala.; E. W. Sturdevant, Treas.; L. E. Rogers, Secy.; both of Atlanta; consolidates American Bakeries Corp. and National Baking Co.

Ky., Paducah—Fire Kindler.—One Minute Fire Kindler Co. increased capital from \$50,000 to \$100,000.

Ky., Covington—Toilet Articles.—Park Gilmore, Inc., capital \$25,000, chartered by Park Gilmore, Anna M. Heileman and Flora Thiele.

Ky., Louisville—Broom Mops.—W. L. Martin Broom Mop Co. increased capital from \$25,000 to \$40,000.

Ky., Owensboro—Tobacco.—Kentucky & Virginia Leaf Tobacco Co., capital \$200,000, incptd. by J. M. Vaughan of Owensboro, J. M. Buckner, J. W. Vaughan and G. O. Tuck of Louisville, Ky.

La., New Orleans—Sugar, etc.—Penick-Ford, capital \$200,000, incptd. by W. S. Penick, Jr., John P. Ford, H. B. Gilpin and others; manufacture sugar, molasses, etc.

La., New Orleans—Alcohol.—United States Industrial Alcohol Co., New York, purchased Louisiana Distilling Co., Republic Distilling Co. and International Distilling Co.; continue plants; manufacture alcohol; continue potash production (from molasses) at International plant.

Md., Baltimore—Children's Garments.—McCawley & Co., Lombard and Commerce Sts., leased building at 122 N. Pearl St. and will equip to manufacture children's garments.

Md., Elkton—Sporting Goods.—A. J. Reach Co. of Philadelphia, Pa., leased factory building and will remodel to manufacture baseballs and other sporting goods.

Mo., St. Louis—Shoes.—Tober-Saifer Shoe Co., capital \$200,000, incptd. by Abraham Tober, Albert Saifer and Anna Tober.

Mo., St. Louis—Skirts, etc.—Harry Ostrowsky, Eighth St. and Washington Ave., leased fifth floor of building at Eleventh St. and Washington Ave.; will equip to manufacture ladies' skirts, cloaks, etc.; double present floor space.

Mo., St. Louis—Shoes.—Tober-Saifer Shoe Co., capital \$200,000, incptd. by Abraham Tober, Albert Saifer and Anna Tober.

Mo., St. Louis—Motion-picture Films.—National Film Publicity Corp., 602-09 Princess Studio Bldg., leased building at 4718-20 Delmar Ave. to provide additional manufacturing facilities and enlarged office.

N. C., Reidsville—Cigarettes.—American Tobacco Co. (New York office, 111 Fifth Ave.) is reported to build \$500,000 cigarette factory.

Okla., Blackwell—Ice-cream.—Blackwell Ice-Cream Co. incptd. by R. I. Frost and L.

S. Frost, Blackwell, and Paul B. Bach, Peckham, Okla.; capital \$10,000.

Okla., Erick—Cow Yokes.—Prock Manufacturing Co. organized; John W. Hefflin, Pres.; F. F. Cain, Secy.; both of Erick; E. D. Stephenson, V.-P., Elk City, Okla.; plans as to erection of building not decided; install machinery to manufacture patent cow yoke or poke; contemplates 500 yokes daily. Lately noted incptd., capital \$10,000. (See Machinery Wanted—Yoke Machinery.)

Okla., Newkirk—Creamery.—Newkirk Creamery, capital \$20,000, incptd. by C. A. Johnson, C. E. Mitchell and Ray S. Johnson.

S. C., Camp Jackson, P. O. at Columbia.—Palmetto Co-operative Creameries Co., capital \$10,000, incptd.; W. E. Atkinson, Pres.-Treas., Orangeburg, S. C.; R. B. Caldwell, V.-P., Chester, S. C.

S. C., Greenville—Ice Cream.—V. O. Garrison, Hopkinsville, Ky., plans to establish ice-cream factory.

Tenn., Chattanooga—Rubber.—Southern Rubber Co., capital \$15,000, incptd. by H. A. Leonard, J. R. Scott, W. H. Davenport and J. Frank Witherspoon.

Tenn., Knoxville—Clothing.—Gillespie-Shields Co., capital \$200,000, incptd. by J. K. Gillespie, Jr., E. H. Scharinghaus, R. P. Scharinghaus and W. S. Shields.

Tenn., North Chattanooga—Paper-box Board.—Tennessee Paper Mills, John Stagner, Pres., and A. M. Shepherd, Gen. Mgr., has completed erection of building noted in July; installing machinery with daily capacity 40 tons paper-box board. (Previous notices stated cost of buildings and machinery to be \$150,000; company chartered with \$200,000 capital.)

Tex., Beaumont—Paper.—Beaumont Paper Co., capital \$20,000, incptd. by Ed. Pagel, R. J. Lighthall and J. G. Taylor.

Tex., Sanderson—Bakery.—Sanderson Bakery will rebuild bakery reported burned at loss of \$200.

Va., Staunton—Brooms.—R. C. Wymer is interested in proposed installation of broom factory. (See Machinery Wanted—Broom Machinery and Material.)

Va., Winchester—Bottling.—Valley of Virginia Tako-Kola Bottling Corp., capital \$50,000, chartered; C. H. Sheet, Pres., Winchester; C. F. Headly, Secy.-Treas., Edinburg, Va.

W. Va., Charleston—Explosives.—E. I. du Pont de Nemours & Co., Wilmington, Del., will, it is rumored, build explosives-manufacturing plant to cost several million dollars.

W. Va., Huntington—Cigarettes.—Liggett & Myers Tobacco Co. (main office, St. Louis, Mo.) let contract The Austin Co. of Philadelphia, Pa., to build cigarette factory; reinforced concrete construction; 100x150 ft.; site 8½ acres.

W. Va., Dunbar—Toilet Articles.—Wink-O Products Co., capital \$50,000, incptd. by Frank G. Fletcher of Dunbar, O. G. Fletcher and Selon Fletcher of Charleston, W. Va., Ed. Winkler and G. L. Winkler of St. Albans, W. Va.

W. Va., Huntington—Storage Batteries.—McKinley Storage Battery Co., 611 4th Ave., organized; W. R. Power, Pres.; T. J. McKinley, V.-P. and Mgr.; has rented building. (Lately noted incptd., capital \$5000.)

W. Va., Sistersville—Explosives.—Agnew-Milliken Torpedo Co., capital \$5000, incptd. by S. G. Pyle and Walter S. Sugden of Sistersville, Jas. B. Milliken of Bremen, Ohio, and others.

MOTOR CARS, GARAGES, TIRES, ETC.

Ark., Jonesboro—Tractors.—Taylor-Jenkins Tractor Co., 704 Cate Ave., organized; capital \$100,000; J. W. Taylor, Pres.-Treas.; J. W. Jenkins, V.-P. and Mgr.; Mrs. M. A. Taylor, Secy.; occupying former peanut factory; will manufacture creeper type farm tractors. (Lately noted.)

Fla., Hastings—Automobile Supplies.—Hastings Auto Supply Co., capital \$25,000, incptd.; F. F. Flake, Pres.; W. C. Gunn, V.-P.; W. S. Tipton, Secy.-Treas.

Fla., St. Petersburg—Automobiles.—Boardman, Vogel & McCrea, capital \$15,000, incptd.; Paul R. Boardman, Pres.; Wm. R. Vogel, V.-P.; Geo. A. McCrea, Secy.-Treas.

Ga., Macon.—H. J. Lamar Co., capital \$25,000, incptd. by H. J. Lamar, F. A. Gross and J. L. Evans.

Ky., Louisville—Garage.—Peter M. Androit & Sons, 217 W. Green St., let contract to Geo. Alt & Co., Louisville, to erect 47x105-ft. fireproof building; cost \$12,000; plans by D. X. Murphey & Bro., Louisville Trust Bldg., Louisville.

Ky., Maysville—Garage.—Maysville-Central Garage Co., capital \$10,000, incptd. by O. I. Bartlett, Henry R. Wood and W. H. Strode.

La., Cedar Grove—Automobiles.—Louisiana Motor Car Co. organized with J. S. Richardson, Pres.; A. B. Pickett, V.-P.; R. E. Murf, Secy.-Treas.; all of Shreveport, La.; build plant to manufacture pleasure cars, commercial vehicles and farm tractors.

Md., Frederick—Automobiles.—Frederick Motor Co., capital \$6000, incptd. by Robt. L. Warfield, Ed. Anderson and C. Griffith Warfield.

Miss., Clarksdale—Automobiles.—Valley Motor Car Co., capital \$100,000, incptd.; remodel and erect addition to building now occupied.

Mo., St. Joseph—Garage.—Auto-Torium Garage Co., capital \$2400, incptd. by W. G. Fairleigh, Jr., Emily Fairleigh, Fred. H. Chambers and A. S. Gillespie.

N. C., Charlotte—Garage.—C. C. Coddington will erect garage and service station; cost \$2500; has let contract.

N. C., Charlotte—Garage.—Jesse W. Garrett will erect garage; 52x58 ft.; cost \$4500; J. P. Little & Son, Contrs., Charlotte.

N. C., Charlotte—Garage.—E. D. Latta will erect garage; 40x150 ft.; cost \$6000; Charlotte Consolidated Construction Co., Contr., Charlotte; W. H. Peeps, Archt., Charlotte. (Lately noted.)

Okla., Oklahoma City—Tires and Rubber.—Beacon Tire & Rubber Co., capital \$5000, incptd. by C. W. and W. L. Darrow of Oklahoma City, and I. I. Scott of Tulsa.

Okla., Pauls Valley—Automobiles.—Grant Motor Car Co., capital \$5000, incptd. by Tom P. Grant, F. N. Preuit and C. E. Grant.

Tenn., Nashville—Tires.—Independent Tire Co., capital \$1000, incptd. by E. E. McGee, Geo. T. Chester, W. B. Young and others.

Tex., Abilene—Garage.—Shelton Motor Co. will erect 50x140-ft. fireproof garage, cost about \$7500; date of opening building proposals not set. (Lately noted.)

Tex., Austin—Garage.—A. J. Zilker let contract to Richard Schmidt, Austin, Tex., to erect 92-ft. by 128-ft. 8-in. 2-story, fireproof building, cost about \$40,000; install electric freight elevator 5 tons capacity; Dennis R. Walsh, Archt., Littlefield Bldg. (also Post-office Box 555), Austin. (Lately noted.)

Tex., Dallas—Garage.—Sidney Reinhardt has plans by Lang & Wittich, Dallas, for 55x110-ft. salesroom and garage building; cost \$15,000; brick structure; composition roof; cement and tile floors.

Tex., Huntsville—Garage.—Smithers Bros. will erect brick garage.

Tex., Texarkana—Automobiles.—Liddell Motor Car Co. incptd. by W. B. and M. F. Liddell and T. E. Webber; capital stock \$25,000.

Tex., Waco—Garage.—A. S. Sanger will expend \$7000 to erect ordinary-construction building; let contract to H. E. Gross, Waco; plans by M. W. Scott & Co., Waco. (Garage lately noted to be of brick construction 51x125 ft.)

Va., Norfolk—Automobiles.—Auto Service Corp., capital \$10,000, chartered; Margaret C. Nokes, Pres.; A. H. Nokes, V.-P.; F. L. Nokes, Secy.-Treas.

Va., Richmond—Garages.—C. H. Archer will erect 14 brick garages to cost \$3000.

Va., Richmond—Garage.—W. S. Forbes will rebuild garage and stable at Monument Ave. and Rosemeath Rd. reported burned at loss of \$7000 on building.

RAILWAY SHOPS, TERMINALS ROUNDHOUSES, ETC.

Okla., Henryetta—Missouri, Oklahoma & Gulf Ry., N. C. Van Natta, Chief Engr., Muskogee, Okla., is having plans prepared for roundhouse and machine shops; cost \$100,000, including machinery and equipment.

ROAD AND STREET WORK

Ala., Bay Minette.—Baldwin County will construct 4 mi. Bay Minette and Daphne Rd., being part of State Trunk Rd. No. 11, between Stapleton and Daphne; 12,000 cu. yds. earth excavation and 510 lin. ft. pipe; County Comms. receive bids until Dec. 31; W. S. Keller, State Highway Engr., Montgomery. (See Machinery Wanted—Road Construction.)

Ala., Enterprise.—City, W. B. Glenn, Mayor, let contract to Southern Clay Mfg. Co., Chattanooga, Tenn., to construct 13,000 sq. yds. street paving; wire-cut lug brick on concrete base; about \$30,000 available;

Engr., Arthur Pew, Atlanta, Ga. (Bids noted in November.)

Ark., Harrisburg.—Poinsett County Commissioners have plans by Morgan Engineering Co., Memphis, Tenn. (approved by H. R. Carter, State Highway Commr., Little Rock), for 17 mi. of road; cost \$38,000; main highway, from which laterals will be built, will be 8 mi. of old Black Oak Rd., from Marked Tree to Crittenden County line; grading, ditching and culvert construction; width of roadway 22 ft.; remove 100,000 cu. yds. earth; 1300 ft. iron culvert drainage pipe; largest bridge of timber, 130 ft. long, on lateral in southern section. (Lately noted.)

Ala., Opelika.—Lee County Comms. let contract Stanley & Singer of La Fayette, Ala., at \$25,500 to grade and surface with sand-clay Opelika and Loachapoka Rd., being part of State Trunk Rd. No. 13, between Opelika and Loachapoka; 11.31 mi.; 51,200 cu. yds. earth excavation; 16,000 cu. yds. sand-clay surfacing; 258 cu. yds. concrete; 842.5 lin. ft. vitrified clay pipe; W. S. Keller, State Highway Engr., Montgomery. (Lately noted inviting bids.)

Ala., Troy.—City was lately incorrectly noted as letting street paving contract.

Ark., Walnut Ridge.—Lawrence County Road Improvement Dist (embracing western section of county) engaged F. A. Pritchett as Civil Engr.; construct 90 to 100 mi. road passing through Black Rock, Imboden, Powhattan, Smithville and Ravenden.

Fla., Fort Pierce.—St. Lucie County, Fellsmere Dist., voted \$50,000 bonds to construct roads. Address County Comms.

Fla., Tampa.—City let contract J. C. McNeill to pave 17th St., 2500 sq. yds., from 4th Ave. to S. A. L. right of way; width 26 ft.; vitrified brick; 1400 lin. ft. concrete curbing; Davis & Webb to pave Grant St., 3600 sq. yds.; reinforced concrete; width of 24 ft.; 220 lin. feet concrete curbing; D. B. McKay, Chrmn. Comms. of Public Works. (Lately noted inviting bids.)

Ga., Augusta.—City let contract W. M. Bowie, Jr., Augusta, to pave 15th St. from Walton Way to Broad St.; 8500 sq. yds.; concrete.

Ga., Thomasville.—City let contract West Construction Co., Chattanooga, Tenn., to pave streets and sidewalks; 12,000 yds. streets, asphalt; 22,000 sq. yds. sidewalks, cement; 23,700 lin. ft. concrete curb and gutter; 8900 lin. ft. concrete gutter; 8900 lin. ft. granite curbing; O. H. Lang, Consult. Engr., Moultrie, Ga. (Lately noted inviting bids.)

La., Thibodaux.—Lafourche Parish, Chas. J. Conlon, Clerk Police Jury, will construct (probably in January) 10 mi. highway; material not decided; probably washed gravel; \$50,000 available. (In November, Road Dist. No. 3 noted as voting \$50,000 bonds to construct roads.)

Mo., Fulton.—Callaway County voted \$25,000 bonds toward fund of \$75,000 to construct 16 mi. road on Old Trails Highway east of Fulton to Montgomery County line; Comms. of Fulton Special Road Dist. contributed \$7500 and State and Federal Governments \$37,500. Address County Comms. (Lately noted to vote.)

Mo., Danville.—Montgomery County, Montgomery City Road Dist., voted \$45,000 bonds to construct rock road. Address County Comms.

Mo., Greenfield.—Dade County, Rock Prairie Township, defeated \$25,000 bonds for road construction. (Lately incorrectly noted.)

N. C., Asheville.—City Comms. will issue \$127,000 bonds to pave streets; this is part of street improvement financing project begun some time ago.

N. C., Danbury.—Stokes County Comms. let contract A. S. Perkins of Danbury at \$1200 to top-soil sand-clay highway between Danbury and Meadows.

Okla., Okmulgee.—Okmulgee County will grade, construct culverts and pave 118 mi. of roads; alternate bids on brick with concrete base, concrete bitulithic, asphaltic concrete and bituminous macadam pavements; County Comms., Courthouse, receive bids until Dec. 17; Howard, Harrington & Ash, Const. Engrs., 1012 Baltimore Ave., Kansas City, Mo. (See Machinery Wanted—Road Construction.)

S. C., Spartanburg.—Spartanburg County Highway Com., John A. Law, Chrmn., asks bids until Dec. 19 to construct, Contract No. 6, 3½ mi. 20-ft. top-soil road on Fair Forrest Rd.; also, in connection with Contract No. 7, for the building of 5 concrete bridges; Reid Tull, County Highway Engr. (See Machinery Wanted—Road and Bridge Construction.)

S. C., Spartanburg.—Spartanburg County Highway Com., John A. Law, Chrmn., asks bids until Dec. 10 to construct 12.06 mi. on National Highway, Section B, in Spartanburg, Reidsville and Beach Springs townships; 20-ft. top-soil roadway; Reid Tull, Engr., Spartanburg. (See Machinery Wanted—Road Construction.)

Tenn., Chattanooga.—City will repave with creosoted wood blocks Hotel St., from Market to Stanton Sts., Paving Dist. No. 210; also construct sewers; bids opened Dec. 3; E. D. Bass, Commr. Dept. Streets and Sewers.

Tex., Canyon.—Randall County voted \$50,000 bonds to construct roads. Address County Commrs.

Tex., Centerville.—Leon County contemplates voting on \$250,000 bonds to construct roads. Address County Commrs.

Tex., Frankston.—City issued \$6000 bonds to improve streets. Address The Mayor.

Tex., Kaufman.—City will construct \$298.44 sq. yds. paving on E. Mulberry St.; W. L. Mulkey, City Secy., receives bids until Dec. 17; W. E. Pickard, Mayor. (See Machinery Wanted—Paving.)

Tex., Decatur.—Wise County, J. W. Walker, County Judge (construction also under Government supervision) will construct about 40 mi. gravel road; \$160,000 available; date of opening bids not set; J. E. Boyd, County Clerk. (Lately noted.)

Tex., Lockhart.—Caldwell County, Road Precinct No. 1, votes Dec. 22 on \$200,000 bonds to construct and maintain roads. Address County Commrs.

Tex., Richmond.—Richmond County Commissioners ordered election for Dec. 18 to vote on \$400,000 bonds to construct roads. Address County Commrs.

Tex., Vernon.—Wilbarger County, Road Dist. No. 1, E. L. McHugh, County Judge, voted \$105,000 bonds for road construction. (Lately noted.)

Va., Pulaski.—City will grade and macadamize 1338 ft. of street through property of Pulaski Iron Co.; also build combination concrete sidewalk and gutter on north side of proposed street; 4200 sq. yds. macadam, 10,000 sq. ft. concrete and 1000 yds. grading; bids until Dec. 4; E. W. Calfee, Mayor. (See Machinery Wanted—Paving.)

W. Va., Webster Springs.—Webster County, P. J. McGuire, Clerk County Court, asks bids until Dec. 28 to construct 4 mi. road on route from Webster Springs to Randolph County line and 3 mi. on route from Webster Springs to Cleveland. (See Machinery Wanted—Road Construction.)

SEWER CONSTRUCTION

N. C., Durham.—City, Geo. W. Woodward, City Clerk, let contract to Blankenship & McClelland, Charlotte, N. C., for sewer construction. (Bids lately noted on 1200 lin. ft. 8-in. vitrified pipe sewers, etc.)

Va., Hopewell.—City will issue \$75,000 bonds to construct sewer, electric-light and water system and equip fire department. Address The Mayor.

SHIPBUILDING PLANTS

Fla., Fernandina.—Fernandina Ship Building & Dry Dock Co. organized by J. J. Maxwell, John A. Ryan (Gen. Supt.) and others, all of 510 Liberty Bldg., Philadelphia, Pa.; has 30-acre site, including 1200-ft. front on deep water and Seaboard Air Line Ry.; build plant to construct and repair ships up to 8000 tons capacity; immediate plan is to provide ways and accompanying facilities for building composite ships; later will erect drydock, shear and dock legs for drydock, machine shop, fabricating shop and wood-working shop for building steel vessels; obtain coal, iron castings, steel shapes, reciprocating engines and deck machinery from Birmingham, oil from Jacksonville, and lumber from Fernandina. (Previously noted organized to build shipyards.)

La., Slidell.—Louisiana Shipbuilding Corp. chartered with \$1,500,000 capital; reorganization of Slidell Shipbuilding Co.; increase working capital and facilities to care for Government contracts. (Lately noted inceptd. at Richmond, Va.)

Miss., Biloxi.—Biloxi Commercial Club plans organization of company to build shipyards.

Tex., Orange.—F. H. Swalles, C. I. Neilson and others will establish shipbuilding plant; have 37-acre site.

TEXTILE MILLS

Ga., Atlanta.—Cotton Products.—Couch Mills Co., authorized capital \$1,000,000, inceptd. by A. G. Couch, W. D. Couch and others.

Ga., Jefferson.—Jefferson Mills, capital \$150,000, organized with Wm. T. Bryan, Prest.; M. M. Bryan, Treas.; W. H. Epps, Supt.; completing addition to Jefferson Cotton Mills (previously purchased) and will install 5000 spindles with 256 looms, giving total of 10,000 spindles and 320 looms; electric power; portion of new looms will replace old ones; manufacture drills, twills and cotton ducks, in addition to 42-in. to 36-in. wide 11's to 16's yarns; formerly manufactured sheetings.

Md., Baltimore.—Woolen Cloth.—United States Woolen Mills Co. inceptd. with \$500,000 capital by Louis Wohlmut, Jacob Neuman and others; offices in Coca Cola Bldg.; manufacture woolen cloth and Men's clothing.

N. C., Boiling Springs.—Hosiery.—Blanch Hosiery Mills, noted in September (under N. C., Shelby) as to establish hosiery mill, organized with W. G. McBrayer, Prest.; P. M. White, V.-P.; Ernest White, Secy.-Treas.; capital \$5000; leased building; installed 10 knitting machines; belt drive; daily capacity 150 doz. prs.

N. C., Charlotte.—Cotton Cloth.—Fidelity Manufacturing Co. will build additional mill; install 100 looms and other machinery.

N. C., Charlotte.—Cotton Products.—H. W. Wells, Gwyn Edwards and others plan organizing \$100,000 company to build cotton mill.

N. C., Elizabeth City.—Hosiery.—P. H. Williams (Supt. Elizabeth City Hosiery Mill) will build hosiery mill; brick; cost \$50,000; weekly capacity 400,000 doz. pairs.

N. C., Forest City.—Cotton Yarn.—E. M. and J. L. Crow will establish cotton-yarn mill; have building; install 432 ring spindles and water-power equipment; manufacture 12s to 20s yarns. (E. M. Crow and others lately noted to build mill.)

N. C., Mebane.—Cotton Products.—F. F. Smith, Cashier of Bank of Mebane, plans organizing company to build cotton mill.

N. C., Maple Springs.—Knit Goods.—Ira C. Triplett of Charlotte, N. C., will establish knitting mill; capital \$12,500; has 25x100-ft. building; 25 knitting machines; water power; daily capacity 150 dozen pairs; will not install machinery until May or June.

N. C., Marion.—Cotton Products.—Crown Cotton Mills Co. will increase capital by \$100,000.

N. C., Cherryville.—Hosiery.—Gaston Hosiery Co. organized with \$100,000 capital by J. W. Kendrick, N. B. Kendrick and M. L. Mauney of Cherryville and A. B. Cook of Gastonia, N. C.; establish hosiery knitting mill; purchased machinery.

WATER-WORKS

Ala., Birmingham.—Birmingham Water Works Co. increased capital from \$1,500,000 to \$1,829,700.

Ark., De Witt.—Bayou Meto Water Co. inceptd. by G. T. Jackson, R. T. Ooten and L. M. Black.

Fla., Titusville.—City voted \$10,000 bonds to improve water-works. Address The Mayor.

Ky., Lawrenceburg.—City, C. A. Leathers, City Clerk, voted \$15,000 bonds for filtration plant as addition to present water-works; capacity 500,000 gals. daily; concrete construction; install filtration equipment, also probably new pump; open bids in spring. (Lately noted.)

Md., Indian Head.—Edward Christman, 416 McClymonds Bldg., Massillon, O., is lowest bidder at \$93,472 to construct additional artesian water supply at naval proving grounds.

Mo., Mayaville.—City contemplates reservoir; capacity 1,000,000 gals; A. D. Hewitt, Clerk.

Okla., Buffalo.—City contemplates constructing water system. Address The Mayor.

Okla., Cyril.—City contemplates voting on \$20,000 bonds to construct water-works; A. W. Funnell, Mayor.

Okla., Madill.—City, A. A. Kelley, Mayor, will expend about \$65,000 to extend water plant; daily capacity 500,000 gals.; erect buildings for pumping plant, concrete receiving basin, steel tower and tank; open bids Dec. 3 for drilling wells and supplying pumping machinery; F. L. Yarger, City Clerk; J. K. Rose, Engr., Madill. (Lately noted voting bonds.)

S. C., Columbia.—City let following contracts to furnish equipment for water works; Perry-Mann Electric Co. of Columbia (representing General Electric Co. of Schenectady, N. Y.) at \$9641 to furnish 250 H. P. electric motor and two 400 H. P. electric motors, together with switchboards, instruments, etc.; Worthington Pump & Machinery Corp.,

115 Broadway, New York, at \$3450 to furnish 2100-gal. per min. centrifugal pump, and two of 3500-gal. per min.; Builders' Iron Foundry of Columbia at \$1435 to furnish venturi meter; F. C. Wyse, Engr.-Supt. (Lately noted inviting bids.)

Tex., Frankston.—City issued \$4000 bonds to extend water-works. Address The Mayor.

Tex., Gouldbeck.—Gouldbeck Water-works Co., capital \$1200, inceptd. by W. A. Smith, S. H. Spruiell, E. C. Edens and others.

Va., Hopewell.—City will issue \$75,000 bonds to construct water, sewer and electric-light system and equip fire department. Address The Mayor.

W. Va., Charleston.—West Virginia Water & Electric Co. contemplates increasing capital by \$1,000,000.

WOODWORKING PLANTS

Ala., Birmingham.—Boxes, Crates, etc.—Bowers & Dobbs Mfg. Co., 500 Helen St., has rented building and installed electrically-operated machinery to manufacture boxes, swings, crates and tables. (Lately noted inceptd., capital \$5000.)

Ala., Marion.—Staves.—F. L. Bailey will rebuild stave mill reported burned.

Ala., Mobile.—Builders' Equipment.—Mobile Builders' Equipment Co., capital \$50,000, incorporated; Jas. K. Glennon, Prest.; Jas. H. Glennon, V.-P.; Walter G. Horn, Secy.; John F. Glennon, Treas.

Fla., Wildwood.—Crates.—Wildwood Crate & Ice Co., capital \$75,000, inceptd.; W. H. McRaney, Prest.; C. D. Bridges, V.-P.; W. D. Gable, Secy.-Treas.

Ky., Lexington.—Veneer.—Mississippi Veneer Co., capital \$50,000, inceptd. by Geo. Headley, Douglass Hoagland and H. P. Headley.

Tenn., Memphis.—Furniture.—King-Haase Furniture Co. increased capital from \$16,000 to \$60,000.

Tex., Port Arthur.—Cooperage.—Port Arthur Cooperage Co., capital \$100,000, inceptd. by W. L. Welford of Memphis, Tenn., W. P. Foley of Pekin, Ill., and others; branch of Chickasha Cooperage Co. of Memphis; let contract Secret Construction Co. of Port Arthur to erect building; 100x100 ft.; frame; concrete floor; electric power; manufacture red and white oak.

Va., Chatham.—Cedar Chests.—Hargrave Cedar Chest Co. will rebuild plant destroyed by fire.

Va., Emporia.—Shook Manufacturing Assn., capital \$10,000, inceptd.; R. W. Jordan, Prest.; A. F. Dodd, Secy.

W. Va., Kenova.—Veneer.—Breece Veneer Co., capital \$100,000, inceptd. by H. T. Breece of Kenova, C. O. Breece, M. H. Shumway and others of Portsmouth, O.

FIRE DAMAGE

Ala., Anniston.—S. P. Ury's farm residence at Cedar Springs; loss \$3000.

Ala., Birmingham.—H. C. Keller's residence, 417 Lucy Ave., Graymont; loss \$3000.

Ala., Marion.—F. L. Bailey's stave mill.

Ala., Montgomery.—S. B. Marks, Jr.'s, residence; loss \$4000.

Ala., Sayreton.—Republic Iron & Steel Co.'s tippie and washer-room; loss \$100,000; offices at Birmingham.

Ark., Newport.—Littleton Bros. Co.'s cotton gin in East Newport; loss \$2500.

Ark., Genoa.—Genoa school. Address Miller County School Commrs., Texarkana.

Ga., Canton.—R. N. Barron's cotton gin.

Ga., Metter.—W. T. Wright's stores, loss \$30,000; E. O'Meadows' residence, owned by Mrs. Nancy Kingery.

Ga., Hawkinsville.—Morgan Thompson's residence.

Ga., Savannah.—Three dwellings owned by E. Sichel; loss \$7000.

Ga., Statesboro.—Statesboro Oil Co.'s cottonseed oil mill; loss \$100,000.

Ga., Statesboro.—W. S. Preterlorus' dwelling.

Ky., Brooksville.—Public School, loss \$7000 (address School Trustees); P. M. Flannery's store, loss \$10,000.

Ky., Lakeland.—Tuberculosis Building at State Hospital for Insane, near Lakeland; A. O. Stanley, Governor, Frankfort, Ky.

Ky., Pewee Valley.—C. A. Calvert's residence and outbuildings; loss \$4000.

Ky., Zlon.—Edward Henderson's residence.

La., Jennings.—Mrs. M. E. Garlick's residence.

La., Madisonville.—Baham Ship Yards Co.'s warehouse; loss \$7000.

Md., Aberdeen.—Dwelling on Swan Creek, owned by Sidney Hall, 1319 Park Ave., Baltimore.

Md., Baltimore.—R. M. Restivo's store at Gwynn Oak and Liberty Heights Ave.; loss \$4000.

Md., Baltimore.—A. Weiskettel & Son Co.'s 3 buildings of stove and enamelware plant at Lombard and Twelfth Sts., Highlandtown; loss \$50,000.

Md., Baltimore.—Lincoln Highway Garage at Belmar, Belair Rd., owned by Sam. M. Schroeder.

Md., Baltimore.—Irvington Garage, 4021-25 Frederick Ave., operated by Wm. W. Burns, Jr., 2031 Robb St.

Md., Ellicott City.—Van Lear Black's grain barrack near Ellicott City; loss \$10,000.

Md., Govans.—John V. Wiseman's residence on St. George's Ave.; loss \$3000.

Miss., Harpersville.—S. R. Sessum's barn.

Mo., Duenweg.—Scott Mining Co.'s mill; loss \$50,000.

Mo., Duenweg.—Scott Mining Co.'s 500-ton mill; loss \$50,000.

Mo., Joplin.—Zinc mill owned by Haywood Taylor and others; loss \$50,000.

N. C., Goldsboro.—Dallas Sutton's country home and several outhouses in Grantham township; loss several thousand dollars.

N. C., Rocky Mount.—M. C. Braswell's cotton gin; loss \$12,000.

N. C., Wilmington.—D. E. Kerr's barn on Castle Hayne Rd.; loss on building and contents \$3000.

N. C., Kernersville.—John Stafford's residence, near Bunker Hill.

S. C., Greenville.—Skelton Building, occupied by L. T. Batson Co.'s store and Eugene F. Bates' auto storeroom; owned by J. P. Childers of Childers-Cely Shoe Co.

S. C., Greenville.—Southeastern Life Insurance Co.'s building; loss \$75,000; T. O. Lawton, Prest.

S. C., Manning.—E. D. Hodge's barn.

S. C., Union.—Merchants' & Planters' National Bank Bldg.

Tenn., Kingsport.—Kingsport Improvement Corporation's dwelling, occupied by James Hall.

Tex., Austin.—Quebedeaux Fruit Co.'s building; loss \$4000 to \$5000.

Tex., Beckville.—Crawford Gin Co.'s cotton gin; loss \$7500.

Tex., Brownwood.—Dwellings of Bud R. Hone, Albert Stephen and Albert Dupree.

Tex., Charco.—J. W. Pettus' residence; loss \$4000.

Tex., Dallas.—South Hall, dormitory at Southern Methodist University; loss \$25,000.

Tex., Danavang.—Sam. Briscoe's barn.

Tex., Edna.—J. W. Garrett's residence, barn and garage.

Tex., Fort Worth.—North Fort Worth Townsite Co.'s 6 cottages; loss \$3000.

Tex., Lagrange.—H. Mensing's residence.

Tex., Longview.—Gulf, Colorado & Santa Fe Ry. Co.'s storeroom; loss \$10,000; F. Merritt, Chief Engr., Galveston.

Tex., May.—J. N. Spince's cotton gin.

Tex., Nacogdoches.—Andrew Curry's residence, owned by E. H. Blount; loss \$2000.

Tex., Orange.—J. W. Higman's residence; loss \$3500.

Tex., Pittsburg.—R. F. Lockett's residence; loss \$8500.

Tex., San Angelo.—W. A. Bales' residence; loss \$15,000.

Tex., Sanderson.—Sanderson Bakery; loss \$3000.

Tex., Vernon.—East View school building, 3 mi. from Vernon. Address School Trustees.

Tex., Waxahachie.—L. D. Hitt's barn near Waxahachie; loss \$3000.

Va., Chatham.—Hargrave Cedar Chest Co.'s plant.

Va., Fredericksburg.—School building at Little Falls, 3 mi. from Fredericksburg; loss \$3000. Address District School Trustees.

Va., Lynchburg.—Barker, Jennings Co.'s building; loss \$150,000.

Va., Richmond.—W. S. Forbes' garage and stable at Monument Ave. and Roseneath Rd.; loss of building \$7000.

Va., Salem.—J. C. Dameron's automobile repair shop; building was owned by J. P. Garrett.

Va., Waynesboro.—Buildings of Standard Pharmacy, Vinson's Hardware Co., Braswell

Furniture Co. and Burke County Supply Co.; estimated loss \$150,000.

W. Va., Parkersburg.—Kinney Building, occupied by A. B. Smith Piano Co. and

owned by Kinney Estate, W. H. Ogden, Administrator, Huntington; loss \$3000.

W. Va., Rippon.—J. Edward Wilt's residence; loss \$4000.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ky., Lexington.—W. L. Lyons deferred erection of proposed apartment-house until spring; preliminary plans by Manley & Young, Lexington, call for 4-story structure; 170x130 ft. (Previously noted.)

Md., Baltimore.—Harold Hann, 4 Queen Anne Rd., Windsor Hills, Baltimore, has plans by Theodore Wells Pietsch, American Bldg., Baltimore, for apartment-house at Roland Ave. and University Parkway; brick walls; joist construction; slate roof on wood framing; wood floors; fireproof corridor floors and stairs; cost \$65,000; low-pressure steam heat, \$5000; electric wiring, \$1800; bids due Dec. 5; contractors estimating are: Cowan Building Co., 106 W. Madison St.; J. Henry Smith, 1428 Light St.; Fred. Decker & Son, 1213 E. Biddle St.; Cogswell-Koether Co., 406 Park Ave.; E. G. Turner, 15 E. Fayette St.; all of Baltimore. (Lately noted.)

Mo., Kansas City.—L. A. Smith will erect 3-story 12-apartment flat; brick; cost \$10,000.

Okla., Bartlesville.—A. Kaster & Sons, Chicago, will probably have contract for labor and material to build 2 apartment-houses and 100 dwellings for company being organized. (See Dwellings.)

Okla., Tulsa.—W. M. Rumley will erect apartment-house; cost \$6000.

Va., Richmond.—P. J. Beattie will erect apartment-house. (See Dwellings.)

ASSOCIATION AND FRATERNAL

Ky., Hickman.—H. P. O. E. will erect Elks Home; cost \$35,000.

Ky., Lackey.—Black Diamond Coal Co. will erect Y. M. C. A. building. (See Dwellings.)

Mo., Kansas City.—Ivanhoe Masonic Lodge has plans by Smith, Rea & Lovett, 602 Finance Bldg., Kansas City, and receives bids about Jan. 1 to erect Masonic Temple; 3 stories; 90x125 ft.; stone and reinforced concrete; cost about \$175,000; J. O. Christensen, Chrmn. Building Com., 3131 Campbell St. (Previously noted.)

BANK AND OFFICE

Ala., Center.—Farmers & Merchants Bank has plans by A. D. Kinsey, Center, for bank and mercantile building; 50x75 ft.; brick; metal roof; concrete floors; cost \$3000. Address Jno. K. Richardson, Center.

D. C., Washington.—Treasury Department, Washington, will alter and extend building at 500-08 14th St. N. W. (See Government and State.)

Ga., Lincolnton.—Anderson & Sons will erect store and office building. (See Stores.)

Mo., Kennett.—E. C. Robinson Lumber Co. will erect offices, etc. (See Miscellaneous Structures.)

N. C., Hendersonville.—Citizens' National Bank will erect building; brick walls; native granite foundation; probably Indiana sandstone front facing; 30x100 ft.; cost \$25,000 to \$40,000; E. W. Ewbank, Chrmn. Building Com., will receive plans from architects.

N. C., Winston-Salem.—Wachovia Bank & Trust Co. has plans by Milburn, Heister & Co., Union Savings Bank Bldg., Washington, D. C., for 2 additions to bank and office building; 50x90 ft. and 18x65 ft.; steel, concrete and brick.

N. C., Winston-Salem.—Wachovia Bank & Trust Co. acquired 3 adjoining buildings and is having plans prepared to enlarge banking quarters; will practically double main floor space, install new equipment, etc.

S. C., Greenville.—Southeastern Life Insurance Co., T. O. Lawton, Prest., will rebuild structure noted damaged by fire at loss of \$75,000.

Tex., Dallas.—D. E. Waggoner has plans by Lang & Wittich, Southwestern Life Bldg., Dallas, for 6-story addition to 4-story and basement building for general offices of Texas & Pacific Ry., E. F. Mitchell, Chief Engr., Dallas; 75x180 ft.; reinforced concrete; brown tapestry brick exterior; terra-cotta trim; marquise entrance; 3 elevators; cost several hundred thousand dollars.

Tex., Orange.—First National Bank will enlarge and extensively improve bank building at Front and Fifth Sts.; entire first floor, including that of adjoining building, for banking quarters; upper floor for 15 offices; double vault and safety deposit boxes; install heating plant, etc.

Tex., Pecos City.—City will erect fire station and office building. (See City and County.)

W. Va., Huntington.—Loop Company will erect 2-story mercantile and office building to cost \$25,000. (See Stores.)

CHURCHES

Ala., Birmingham.—Avondale Methodist Church will not erect lately-noted building for about a year; brick; electric lights. Address G. C. Ellis, Avondale, Birmingham.

Ark., Conway.—Catholic Church, Rev. P. Zell, Pastor, deferred indefinitely erection of \$30,000 building to seat 700. (Previously noted.)

Miss., Farrel.—Methodist Church indefinitely postponed erection of building previously noted; M. M. Alsop, Archt., Clarksdale, Miss.

Mo., Independence.—Reorganized Latter Day Saints Church will erect building. Address The Pastor.

Mo., Kansas City.—First Christian Church, Rev. J. E. Davis, Pastor, 422 E. 11th St., has plans by Shephard, Farrar & Wiser, 1292 R. A. Long Bldg., Kansas City, for building; 32x76 ft. Address F. N. Daniels, 9th St. and Denver Ave., Kansas City. (Previously noted.)

Mo., Kansas City.—Church of the Holy Name, J. Fowler, Rector, 2201 Benton Bldg., has plans by Wight & Wight, 401 First National Bank Bldg., Kansas City, and will soon let contract to erect proposed building; 101x166 ft.

N. C., Cherryville.—Baptist Church, Rev. D. F. Putnam, Pastor, will erect \$15,000 structure.

Okla., Cherokee.—Methodist Episcopal Church has plans by Jos. F. Maher, Great Bend, Kan., for building; 54x84 ft.; brick, stone, tile and wood; asphalt slate roof; wood floors; plans being revised, ready for distribution about Dec. 15; cost \$25,000; vapor heat, about \$2500; electric lights from local plant, installation of fixtures to cost about \$1500. Address H. B. Kilewer, Chrmn. of Board, Cherokee. (Previously noted.)

S. C., Rock Hill.—First Baptist Church, Rev. J. P. Tucker, Pastor, plans to erect building; cost about \$70,000.

Tenn., Fountain City.—Fountain City M. E. Church, Rev. E. H. Yankee, pastor, will erect additional auditorium to cost \$25,000.

Tex., Fort Worth.—First Christian Church will expend \$6000 to complete building at 6th and Throckmorton Sts.; Jas. Harrison, Van Zandt Jarvis, W. A. Darter and others, Building Com.

Tex., Fort Worth.—First Baptist Church contemplates erection of \$100,000 brick tabernacle. Address Rev. J. Frank Norris.

Tex., San Antonio.—Congregation Temple Beth-El plans to erect synagogue. Rev. Samuel Marks, Rabbi.

Va., Norfolk.—Second Calvary Baptist Church, Rev. C. P. Madison, Pastor, has plans by Harvey Abrahams, Arcade Bldg., Norfolk, for building; cost about \$35,000.

Va., Richmond.—Church of the Holy Comforter, Rev. Wm. Edward Cox, Rector, plans to erect building.

W. Va., Charleston.—First Christian Church has plans by W. H. St. Clair, Charleston, for building; 90x120 ft.; semi-fireproof; composition roof; tile and composition floors; cost \$50,000; date opening bids not set. (Lately noted.)

CITY AND COUNTY

Ark., Harrison.—Infirmary.—Boone County Commrs. will erect infirmary. (See Hospitals.)

Fla., Jacksonville.—Warehouses.—City Commission abandoned plan to erect warehouses

at municipal docks; J. C. O'Dell, Gen. Mgr., Municipal Docks. (Previously noted.)

Fla., Miami.—City Hall.—City will not erect addition to city hall, but plans to erect new structure in future. Chas. W. Murray, City Engr. W. C. DeGarmo, Miami, lately noted as architect for addition.

Ga., Atlanta.—Warehouse.—Fulton County postponed erection of previously-noted warehouse; H. K. Chapman, Archt., 530 Candler Bldg., Atlanta.

Ky., Lexington.—Infirmary.—Fayette County is considering erecting infirmary. Address County Commrs. (See Hospitals.)

Tex., Dallas.—Jail.—City does not contemplate erecting jail, lately noted; H. J. Emmins, Bldg. Inspector.

Tex., Pecos City.—Fire Station and Office Building.—City, Monroe Kerr, Secy., receives bids until Dec. 10 to erect 1-story fire station and office building; 40x60 ft.; interlocking tile; cement floor; plans and specifications at office E. B. Kiser.

Tex., Mt. Pleasant.—City Hall.—City, Sam Porter, Mayor, will erect City Hall; bids opened; B. B. Peterman, City Secy.

Tex., New Braunfels.—Firehouse.—City opens bids Dec. 11 to erect firehouse; 55x75 ft.; brick; metal roof; wood floors; cost \$11,000; Leo M. J. Diehlman, Archt., San Antonio, Tex. Address The Mayor. (Lately noted.)

Va., Portsmouth.—Alms house.—City is considering erecting building for tuberculosis patients at almshouse; estimated cost \$5000. Address The Mayor.

DWELLINGS

Ala., Andalusia.—Geo. O. Waits of Waits & Henderson Lumber Co., Careyville and Tuscaloosa, Ala., will erect several residences; also erect business building.

D. C., Washington.—Mrs. Julia E. O'Donnell will remodel residence at 1629 16th St.; cost \$9700.

D. C., Washington.—W. C. and A. N. Miller will erect frame dwelling at 3434 Thirty-fourth St. N. W.; cost \$5000.

D. C., Washington.—Harry A. Kite, 1712 R St. N. W., will erect frame dwellings at 4308 Iowa Ave., 1319 Decatur St., 1302 Emerson St. and 1303, 1230-32 Delafield St.; cost \$21,000.

Fla., Jacksonville.—O. P. Woodcock will erect dwelling on 9th St., near Main St.; frame; cost \$3000.

Fla., Vero.—S. M. Carnes will erect residence; 16x32 ft., with "L" 12x14 ft.; frame; 3-ply composition roof; pine floors; kerosene lighting. (Lately noted.)

Ga., Atlanta.—T. F. Kennedy is having plans prepared by C. E. Frazier, Atlanta, for residence; bungalow type; cost \$10,000.

Ga., Atlanta.—Mrs. Eugenia Ivy has plans by Leila Ross Wilburn, Peters Bldg., Atlanta, for 2-story brick-veneer dwelling; asphalt shingle roof; tiled sun parlor; 2 tiled baths; hardwood floors; furnace heat; electric lights; cost \$8000. (Lately noted to have let contract to Mrs. Nora G. Webb, Atlanta, to erect residence.)

Ga., Atlanta.—H. T. Yeargin will erect 1-story brick-veneer bungalow; asphalt shingle roof; hardwood floors; electric lights; furnace heat; cost \$3200; Leila Ross Wilburn, Archt., 305 Peters Bldg., Atlanta. (Lately noted.)

Ga., Atlanta.—Mrs. Nora G. Webb will erect brick-veneer bungalow; asphalt shingle roof; hardwood floors; electric lights; furnace heat; cost \$4000; Leila Ross Wilburn, Archt., 305 Peters Bldg., Atlanta. (Lately noted.)

Ga., College Park.—J. C. Jones has plans by Leila Ross Wilburn, 305 Peters Bldg., Atlanta, for bungalow; wood shingles; wood veranda and colonnade columns; casement windows; furnace heat; hardwood floors; electric lights; cost \$2300.

Ga., Hartwell.—Mrs. Julian B. McCurry will erect brick-veneer residence; construction begins first of year.

Ga., Lagrange.—Mrs. R. H. Park has plans by Leila Ross Wilburn, 305 Peters Bldg., Atlanta, for bungalow; frame; 1½ stories; hardwood floors; wood porch columns; sliding doors; fireplaces; casement windows; cost \$3500.

Ky., Lackey.—Black Diamond Coal Co. will erect 25 miners' houses, welfare and Y. M. C. A. buildings; will let contracts within 2 weeks.

Ky., Yeager.—E. E. George Coal Co. will let contract at once to erect 50 miners' houses.

Md., St. Helena.—Dundalk Company, Edw. L. Boughton, Prest., Roland Park, Md., is

understood to be receiving bids for building 523 cottages to be occupied by employees of Bethlehem Steel Co., Sparrows Point; hollow tile construction; Edw. L. Palmer, Jr., Archt., 513 N. Charles St., Baltimore. (Previously noted.)

Miss., Clover Hill.—J. A. Darden rejected all bids to erect residence; frame and brick veneer; composition roof; wood floors; hot-water heat; lighting from storage battery; cost \$10,000; M. M. Alsop, Archt., Clarksdale, Miss.

Mo., Kansas City.—J. G. Goodwin will erect dwelling in Mission Hills.

N. C., Charlotte.—Stroupe Construction Co. will erect 2 dwellings; 6 and 8 rooms, respectively; cost \$2500 each.

N. C., Gastonia.—Dunn Mills will erect 6 cottages.

N. C., Greensboro.—Mrs. V. C. Lewis will erect 2-story residence; cost \$3000.

N. C., Greensboro.—L. Richardson will erect two 2-story residences; cost \$7500.

N. C., Greensboro.—P. R. Coble will erect two 1-story residences; cost \$2000.

N. C., Kinston.—J. W. Carey will erect bungalow; frame; 1½ stories; hardwood floors; wood porch columns; furnace heat and fireplaces; electric lights; sliding doors; casement windows; cost \$4500; Leila Ross Wilburn, Archt., 305 Peters Bldg., Atlanta.

N. C., Louisburg.—Rev. W. B. Morton will erect residence to replace structure lately noted damaged by fire; 10 rooms, about 14x16 ft. each; 9-ft. halls; wood; shingle roof; wood floors; cement sidewalk; cost and other details not determined plans not drawn; construction begins in spring. (See Machinery Wanted—Building Materials.)

N. C., Winston-Salem.—L. L. Campbell has plans by Leila Ross Wilburn, 305 Peters Bldg., Atlanta, for dwelling; 2 stories; frame; furnace heat and fireplaces; electric lights; hardwood floors; cost \$4000.

Okla., Bartlesville.—A. Kaster & Sons, Chicago, will probably have contract for labor and material to build 100 dwellings and 2 apartment-houses by company being organized with \$100,000 working capital; dwellings to contain 4 or 5 rooms each; apartments, twelve 5-room suites.

Okla., Tulsa.—Mrs. A. King will erect residence; cost \$6500.

Okla., Tulsa.—Z. O. Parnell will erect \$5000 residence.

Okla., Tulsa.—E. Rickey will erect \$2000 residence.

Okla., Tulsa.—K. M. Van Horn will erect \$4000 dwelling.

Okla., Tulsa.—A. D. Butler will erect dwelling; cost \$3000.

Okla., Tulsa.—E. E. Clulow will erect \$3000 residence.

Okla., Tulsa.—W. J. Carl will erect residence; cost \$4000.

Okla., Tulsa.—J. Paget will erect dwelling; cost \$3500.

Okla., Tulsa.—Roy Lundy, Tulsa, will erect residence; 28x40 ft.; frame; red cedar shingle roof; oak floors; gas heat; electric lights; cement sidewalks; cost \$3500.

Okla., Tulsa.—W. D. Blacker will erect residence; frame; cost \$3500.

Okla., Tulsa.—B. M. Vaughn will erect dwelling; frame; cost \$3000.

Okla., Tulsa.—Ella A. Middleton will erect frame residence; cost \$3500.

Okla., Tulsa.—Ed. and Catherine Reneggerman will erect \$2000 residence.

Okla., Tulsa.—M. Syphert will erect frame residence; cost \$5000.

Okla., Tulsa.—Chas. P. Yadan will erect dwelling; frame; cost \$3500.

S. C., Spartanburg.—Col. Merritt H. Smith of 104th Field Artillery, Camp Wadsworth, will erect residence in West Wadsworth.

Tenn., Spring Hill.—Fount Rice, Bigbyville, acquired 230-acre farm near Spring Hill; will erect residence, barn and out-buildings next year.

Tex., Beaumont.—J. H. Reese will erect ten 4 and 5-room residences, in addition to 20 previously erected; frame; shingle roof; construction begun. (Lately noted.)

Tex., Crowell.—R. B. Edwards has plans by R. H. Stucky, Chillicothe, Tex., for residence; brick and stucco; 40x62 ft.; silveroid composition roof; hardwood and tile floors; electric lights; cost \$1500; hot-air heat, \$600; construction by day labor. Address owner. (Previously noted.)

Tex., El Paso.—J. E. Hignet will erect 4-room bungalow; cost \$2000.

Tex., San Antonio.—P. L. Simon will erect 2 dwellings; cost \$2350.

Tex., San Antonio.—V. S. Rasmussen will erect 5-room addition to residence; cost \$2000.

Tex., San Antonio.—S. A. Davenport will erect 5-room dwelling; cost \$2400.

Tex., San Antonio.—John Hagy will erect two 5-room dwellings; cost \$2000.

Tex., San Antonio.—H. C. Thorman will erect 3 dwellings on Warwick Blvd., 3 on Cincinnati Ave. and 2 on Dunning Ave.; 5 rooms; total cost \$14,600.

Tex., San Antonio.—Sam Friedmann will erect 2 residences; 5 rooms; cost \$3400.

Tex., San Antonio.—M. L. Davis will erect 2 dwellings; cost \$2000.

Tex., San Antonio.—W. T. Goode will erect 5 houses on St. Francis St.; cost \$5700.

Va., Norfolk.—C. W. Beard will erect residence; frame; cost \$2400.

Va., Norfolk.—Ballentine Realty Corp., J. W. Halstead, Pres., is interested in organization of company to erect number dwellings for workmen employed by Government.

Va., Richmond.—P. J. Beattie will erect 3 brick dwellings, between Lombardy and Temple Sts.; cost \$13,500; also brick apartment-house, between Dance St. and Lakeview Ave.; cost \$34,000.

W. Va., Charleston.—Industrial Home Finance Co., previously noted to erect number of dwellings, will erect about 2000 residences to cost \$1800 to \$4000 each; also 200 workmen's houses to cost \$800 to \$1000 each; has let contract to erect fourteen 2-story houses in Montrose. (See Machinery Wanted—Building Materials.)

W. Va., Dunbar.—Dunbar Construction Co. will erect number of 1 and 2-story residences; cost \$1000 to \$2000 each; bids opened in March, 1918. Address C. L. Enrodi, Secy.

W. Va., Fairmont.—Greater Fairmont Investment Co. plans to erect number dwellings in connection with development of industrial town.

GOVERNMENT AND STATE

Ark., Little Rock.—Hostess House.—National War Council, Y. W. C. A., 800 Lexington Ave., New York, will erect hostess-house at Camp Pike; management local Y. W. C. A.

D. C., Washington.—Office Building.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, opened bids to alter and extend office building at 500-08 14th St. N. W.; W. E. Mooney, Evans Bldg., Washington, low bidder at \$51,713. (Lately noted.)

Fla., Arcadia.—Aviation Camp.—War Department, Washington, D. C., will establish aviation camp; accommodate 2000; reported to let contract to A. Bentley & Son, Toledo, Ohio, for construction.

Md., Baltimore.—Warehouse.—Quartermaster's Dept., Washington, D. C., leased 90,000 sq. ft. area of Monticello Distilling Warehouse, Holliday St. and Fallsview; is receiving bids on installation of elevators and other improvements.

Md., Baltimore.—Ordnance Depot.—War Department, Washington, D. C., is reported to expend \$5,000,000 to establish ordnance depot at Stahl's Point on Curtis Creek; plans include erection of warehouses, docks, wharves and barracks, extension of railroad track from Curtis Bay to Stahl's Point, dredging channel, etc.

Md., Indian Head.—Powder Dry Houses.—Bureau of Yards and Docks, Navy Department, F. R. Harris, Chief, Washington, D. C., opened bids to construct 23 powder dry houses at Naval Proving Grounds; J. H. Nolan Construction Co., Munsey Bldg., Baltimore, low bid at \$253,677; galvanized iron or asbestos protected metal.

N. C., Chapel Hill.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., opened bids to erect postoffice. Haynes Bros., Chatham, Va., are low bidders at \$43,150. (Previously noted.)

Okla., Shawnee.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., opens bids Jan. 7 to erect postoffice; plans and specifications from custodian at Shawnee, or Mr. Wetmore, Washington.

Tex., Fort Worth.—Library.—American Library Assn. will erect library building at Camp Bowie. (See Government and State.)

HOSPITALS, SANITARIUMS, ETC.

Ark., Harrison.—Boone County Comms. (W. F. Gordon and others) will erect infirmary; brick; 20 rooms; accommodate 50 persons; cost \$15,000.

Ga., Milledgeville.—State has plans by T. H. De Saussure, Milledgeville, for sanitarium to accommodate 500 patients; brick; tin roof; wood floors; cost \$130,000; bids opened Dec. 19. Address Board of Trustees, Georgia State Sanitarium, Milledgeville. (Lately noted.)

Ky., Bowling Green.—City and Warren County are considering erecting \$50,000 hospital. Address The Mayor or County Comms.

Ky., Lexington.—Fayette County is considering purchase of Lisle farm for infirmary buildings; probably concrete. Address County Comms.

La., Bogalusa.—Great Southern Lumber Co., W. H. Sullivan, V.-P., will erect and equip clinic building at Bogalusa Hospital; cost \$20,000 to \$25,000.

S. C., Columbia.—Columbia Hospital, Mrs. T. Milne, Supt., postponed erection of nurses home lately noted and will repair present structure.

Tex., Austin.—City votes Dec. 20 on \$175,000 bonds to improve hospital (Geo. S. Iredel, Archt., Austin), school improvements, sewer construction, etc.; A. P. Wooldridge, Mayor. (Lately noted.)

Va., Portsmouth.—City is considering erecting building for tuberculosis patients at almshouse. Address The Mayor. (See City and County.)

HOTELS

Ala., Ashland.—Huckeba Hotel will erect 10-room annex.

Fla., Miami Beach.—Casa Grande Hotel Co., Cleveland, Ohio, has plans by Howell & Thomas, 2023 Euclid Ave., Cleveland, for hotel; stucco; fireproof; tile roof where exposed decking, unexposed decking composition; concrete and mosaic tile floors; steam heat; city lighting; 6 passenger and 3 freight elevators; cost \$500,000 without mechanical equipment; contract not let; construction begins March 1. Address Geo. H. Burrows, 526-27 Guardian Bldg., Cleveland. (Lately noted.)

Ga., Atlanta.—Hugh Richardson postponed erection of previously-noted hotel; plans by H. K. Chapman, Atlanta, call for 9-story structure; tile and concrete; fireproof; \$150,000 to \$200,000.

Mo., Joplin.—Estes-Hicks Real Estate & Insurance Agency will erect Colonial Inn Hotel at Picher; 2 stories; 108 rooms; probably concrete; 108x110 ft.; 54-ft. court with 25-ft. open cement terrace; steam heat; electric lights; private water system, supplied by 1000-ft. well and 9000-gal. tank; completion in 60 days; cost, including furniture, \$50,000.

Mo., Kansas City.—R. J. Scott, of Van Dyke Fur Co., will erect apartment hotel.

Tex., Fort Worth.—Metropolitan Hotel Co. inc'd. with \$50,000 capital by W. A. Bennett, B. W. Couch, Max K. Mayer and others.

Tex., McAllen.—M. E. Waller & Co., Dan Waggoner Bldg., Fort Worth, are preparing plans for hotel; 57 bedrooms; 30 private baths; dining room, sample room, etc.; reinforced concrete; pebble-dash finish; gypsum block or hollow-tile partitions.

MISCELLANEOUS

Ala., Birmingham.—Fair.—Alabama State Fair Association, Wm. J. Adams, Treas., will expend \$10,000 for improvements, to include erecting buildings for poultry and dog exhibits, etc.

Ky., Lackey.—Welfare.—Black Diamond Coal Co. will erect welfare building. See Dwellings.)

Mo., Kennett.—Lumber Yard.—E. C. Robinson Lumber Co. will erect lumber yard, office, sheds and supply-houses; brick construction.

Mo., Kansas City.—Clubhouse.—Kansas City Athletic Club, Lawrence C. Smith, Chrmn. Building Com., let contract to E. B. Stewart for excavation for \$1,000,000 clubhouse; plans by Smith, Rea & Lovitt, Kansas City, call for 12 stories; sub-basement 77 ft.; 129 sq. ft.; fireproof; steel, concrete and hollow tile; 190 ft. high; swimming tank 75x25 ft.; Turkish baths; gymnasium, etc. (Previously noted.)

N. C., Asheville.—Clubhouse.—Women's Club is considering erection of clubhouse; Mrs. N. M. Watson, Virginia Carrier, Catherine Carrier and others are interested.

N. C., Rutherfordton.—Welfare.—Cleghorn Mills Co. will erect welfare building for operatives.

Okla., Miami.—Clubhouse.—Safety and San-

itation Club will erect \$25,000 clubhouse on Blue Mound.

Tenn., Sevierville.—Barn.—J. R. Wade will rebuild barn lately noted damaged by storm; frame; metal roof.

Tenn., Spring Hill.—Barn, etc.—Fount Rice, Bigbyville, will erect barn, outhouses and dwelling. (See Dwellings.)

Tex., Fort Worth.—Library.—American Library Assn. will erect library building at Camp Bowie; cost \$10,000.

RAILWAY STATIONS, SHEDS, ETC.

Fla., Fort Myers.—Atlantic Coast Line Ry., J. E. Willoughby, Ch. Engr., Wilmington, N. C., will erect passenger station; 50x224 ft.; mission style; tile roof and floors; plans by G. M. Poley, Wilmington. (Lately noted.)

Fla., Sebring.—Atlantic Coast Line Ry., J. E. Willoughby, Ch. Engr., Wilmington, N. C., will erect station; stucco; red brick trim.

Tex., Sherman.—Texas Electric Co. will erect car sheds.

Tex., Hillsboro.—Railroad Commission directed St. Louis Southwestern Ry., C. D. Purdon, Chief Engr., St. Louis, Missouri, Kansas & Texas Ry., E. F. Yancey, Chief Engr., Sedalia, Mo., and Trinity & Brazos Valley Ry., J. W. Robins, Recr., Houston, to erect joint passenger depot.

SCHOOLS

Ala., Gadsden.—Moody School Dist. votes Dec. 10 on tax to erect school; E. P. Murphy, County Supt. of Education.

Ark., Hamlin.—School Dist. No. 13, A. S. Jeffers, Secy., deferred erection of school until spring, probably April; plans by Clyde A. Ferrell, Little Rock, Ark., call for 2-story frame structure 2x50 ft.; cost \$3500. (Lately noted.)

Ark., Leslie.—Home Mission Board of Missionary Baptist Church, Atlanta, Ga., is considering erecting school; approximate cost \$22,000; Rev. Mr. Jenkins, Pastor, is interested.

D. C., Woodburn.—Board of Comms., Room 508, District Bldg., Washington, will erect addition to School Building No. 101 on Riggs Rd.; blank forms, plans and specifications at office of Chief Clerk, Engr. Dept., Room 427, District Bldg., Washington; bids opened Dec. 4.

Ga., Pulaski.—Pulaski School Dist. will erect school building; size not determined; brick; metal roof; pine floors; cost \$5000; other details not determined; date opening bids not set. Address Trustees Pulaski School.

Ky., Brooksville.—School Board will erect \$25,000 brick school to replace burned structure.

La., Houma.—Terrebonne Parish appropriated \$7000 to supplement \$3000 available to erect and equip schools in parish; A. R. Vignerie, Pres. of Parish School Board.

La., Winsboro.—School Board will erect building to cost about \$80,000 to replace previously burned structure; other details not determined; J. E. Humphries, Principal. (Previously noted.)

Miss., Cliftonville.—Noxubee County has plans by W. Roger, Brooksville, Miss., for school; 60x40 ft.; frame; shingle roof; stoves; cost \$2500; construction begun. (Previously noted.)

Mo., Kansas City.—Board of Education, Hale H. Cook, Pres., is having plans by C. A. Smith, 602 Finance Bldg., Kansas City, for school and library building; reported cost \$150,000. (Previously noted.)

N. C., Chapel Hill.—University of North Carolina, Edw. K. Graham, Pres., is considering erecting woman's building.

N. C., Kinston.—City postponed election on \$150,000 school bonds from Dec. 11 to about Jan. 1; W. B. Coleman, City Clerk. (Lately noted.)

Okla., Bristow.—City is considering election on \$30,000 bond issue to erect high school on unit plan; C. E. Hutton, Supt. of Schools.

S. C., Rock Hill.—Winthrop College, D. B. Johnston, Pres., plans to erect \$100,000 dormitory.

Tex., Austin.—City votes Dec. 20 on \$175,000 bonds for schools, hospital and sewers; A. P. Wooldridge, Mayor.

Tex., Bryan.—City is having plans prepared by M. L. Waller & Co., Dan Waggoner Bldg., Fort Worth, Tex., for high school; reinforced concrete construction; brick facing; hollow-tile backing; gypsum block or hollow-tile partitions; 3 full stories; auditorium with balcony; cost \$90,000. (Lately noted.)

Tex., Coryell.—School Board, W. E. Patton, Secy., receives bids until Dec. 15 to erect school; plans and specifications at office Ross & Cason, Archts., Waco, Tex.

Tex., Dallas.—Southern Methodist University will erect dormitory to replace structure noted damaged by fire at loss \$25,000; fireproof.

Tex., Gatesville.—State Juvenile Training School Trustees have plans by W. G. Clark, First National Bank Bldg., Fort Worth, Tex., for remodeling 2 dormitories; fireproof; tar and gravel roof; cement floors; Dunham heating system connected with central power plant; cost \$20,000; construction begun. (Lately noted.)

Tex., Vernon.—School Trustees will rebuild East View school building, 3 mi. from Vernon, noted damaged by fire.

W. Va., Moundsville.—Board of Education of Moundsville Ind. School Dist. adopted revised plans for graded and high school buildings; former 10 rooms; cost \$40,000; latter 21 rooms and gymnasium; cost \$90,000; C. W. Bates, Archt., Wheeling. (Previously noted.)

STORES

Ala., Audalusia.—Geo. O. Waits will erect business building. (See Dwellings.)

Ala., Ashland.—Clay County Insurance Agency has plans by and let contract to W. R. Barnhill, Lineville, Ala., to erect mercantile building; 40x80 ft.; brick; metal roof; wood floors; cement sidewalks; cost \$3500. Address A. Northen, Ashland. (Lately noted under Bank and Office.)

Ala., Athens.—Bernstein Shoe Shop will erect building to replace structure damaged by fire at a loss of \$2000.

Ala., Athens.—Crutcher & Carter will erect store to replace structure noted damaged by fire at loss of \$9000.

Ala., Bessemer.—Harris Bros. will erect store building at 320 19th St.; 40x100 ft.; brick; cost \$8000 to \$8000; bids opened Jan. 1.

Ala., Bessemer.—Ben G. Perry is receiving bids to erect building for 4 stores; 25x100 ft. each. (Previously noted.)

D. C., Washington.—M. Goldenberg, 912 25 Seventh St. N. W., acquired adjoining site at 708 K St. N. W., 30x120 ft., and will erect addition to store building.

Ga., Atlanta.—Southern Express Co. will erect \$12,000 warehouse at Terminal Station; frame; 34x24x32 ft.

Ga., Lincolnton.—Anderson & Sons are having plans prepared by Bieckley & Irvin, King Bldg., Augusta, for 2-story store and office building; 60x95 ft.; face-brick exterior; plate-glass front; composition roof; wood floors; Delco lighting system; 6x6-ft., 2000-lbs. capacity, hand-power elevator. Address architects. (See Machinery Wanted—Elevator.)

Ga., Lincolnton.—Farmers' State Bank has plans by Bieckley & Irvin, King Bldg., Augusta, for store; brick; 30x70 ft.; plate-glass front; composition roof; tile floors; bids opened Dec. 10.

Miss., Loun.—J. C. Morris & Co. postponed erection of store building lately noted until spring; brick; 24x80 ft.

Mo., Kansas City.—Mrs. N. K. Lallines will erect 2-story brick business building; cost \$12,000.

Mo., St. Louis.—Bear & Fuller, 6th and Washington Sts., are having plans prepared by Mauran, Russel & Crowell, Chemical Bldg., St. Louis, for addition.

N. C., Carthage.—John Graham will erect brick store building.

N. C., Greensboro.—Fuller Smith will erect 1-story building; cost \$3500.

Okla., Miami.—A. Kahn, Sedalia, Mo., does not contemplate erecting lately noted business building at this time.

S. C., Lexington.—Corley Bros. will erect store and hotel building.

Tex., San Antonio.—Mrs. M. Kolb will erect store building; cost \$2500.

Va., Portsmouth.—H. Silverman & Bro. will erect store building; 1½ stories; brick; 35x100 ft.; cost \$10,000.

Va., Richmond.—Mary T. Williams will expend \$4500 to repair brick building at 1205 E. Main St.

W. Va., Fairmont.—W. J. Wiegel has plans by C. H. Snider, Fairmont, for store building on Main St.; 50x165 ft.; brick and terra-cotta; composition roof; wood floors; cement sidewalks; cost \$20,000; construction begins Feb. 1.

W. Va., Huntington.—Loop Company, 310 10th St., will erect mercantile and office building; 2 stories; site 40x160 ft.; cost \$25,000; S. L. Day, Archt., First Natl. Bank Bldg., Huntington.

THEATRES

Fla., Pensacola.—Company organized by Joe M., Sidney P. and Sol A. Levy and others will erect theater to be known as The Strand.

Mo., Kansas.—Company with Geo. W. Curtiss, Mgr., has plans by Greenbaum & Hardy, Scarritt Bldg., Kansas City, for Doric Theater; cream terra cotta; seating capacity 976; cost \$50,000.

Tex., Bastrop.—Airion Opera House will remodel opera house; 50x125 ft.; hot-air heat; electric lights; construction begins Feb. 1. Address Chester Erhard.

Va., Eagle Mountain.—H. S. Henderson, Eagle Rock, Va., has plans by Chas. Henderson, Eagle Rock, for theater to replace structure lately noted damaged by fire; 30x60 ft.; brick or concrete blocks; tar and gravel roof; hardwood floors; cost \$1500; electric lights, \$250; construction begins in spring; date opening bids not decided. Address owner.

WAREHOUSES

Ga., Reidsville.—Tattnall County Market Bureau is promoting organization of companies to erect warehouses in different sections of county for storage of farm products and establishment of feed mills.

Ky., Paducah.—J. M. Buckner, Louisville, is promoting erection of 4 tobacco warehouses; 400x400 ft.; estimated cost \$75,000.

La., Chamberlin.—Devall Planting Co., Inc., will rebuild hay barn lately noted damaged by fire; 40x60 ft.; frame; composition roof; construction probably by owner.

Md., Baltimore.—Quartermaster's Dept., Washington, D. C., is receiving bids on installation of elevators and other improvements to 90,000 sq. ft. area of Monticello Distilling warehouse, Holliday St. and Falls-way.

Md., Baltimore.—J. M. Holland, Prest. Chesapeake Bank, North Ave. and Ellamont St., is promoting organization of company to erect warehouse and make other improvements to wharf property on Block St.

Md., Baltimore.—Leon Raast, 2340 Eutaw Pl., will erect 3 and 2-story warehouses at 1540 Ridgely St.; 80x45 and 80x40 ft., respectively; brick and concrete; cost \$22,000 to \$30,000; Callis & Callis, Archts., 2055 Kennedy Ave., Baltimore. (Lately noted.)

Tex., San Antonio.—G. A. C. Half will erect storehouse to be occupied by Fisk Company of Texas; 2 stories.

W. Va., Bluefield.—Bluefield Telephone Co. will erect lately-noted warehouse; 50x80 ft.; 3 stories; brick; concrete roof with gravel covering; reinforced concrete and steel floor construction; cost \$15,000; M. H. Pedigo, Archt., Bluefield. (See Machinery Wanted—Heating Plant; Elevator.)

Okla., Stillwater.—Oklahoma A. & M. College, J. W. Cantwell, Prest., let contract to E. E. Brewer, Stillwater, to erect residence on campus of A. & M. College for F. W. Redlich; 40x50 ft.; frame; shingle roof; hardwood floors; cost \$6000; plans by F. W. Redlich, Stillwater. Address contractor. (Previously noted.)

Okla., Tulsa.—R. T. Barnes, 1516 W. Cameron St., let contract to Gordon Van Tine Co., Davenport, Okla., to erect lately noted residence; 32x40 ft.; frame; top shingle roof; partly hardwood floors; light from Public Service Co.; cost \$3500; hot air heat, \$300; materials furnished by contractor. (See Machinery Wanted—Lighting; Plumbing Fixtures.)

Okla., Tulsa.—Mattie A. Cunningham, 912 S. Denver St., has plans by and let contract to J. M. Whitehead, 411 W. Jasper St., Tulsa, to erect dwelling; 26x34 ft.; 2 stories and basement; 8 rooms; frame; brick foundation; shingle roof; wood floors; gas and coal hot-air furnace to cost \$500; electric lights; cost \$6000. Address owner.

Tenn., Chattanooga.—S. H. Robertson let contract to Wm. Duncan, Chattanooga, to erect residence; 75x60 ft.; terra cotta and brick; composition roof; wood floors; cost \$20,000; hot-air heat, \$1000; Crutchfield & Hamilton, Archts., Chattanooga; all contracts closed. (Lately noted.)

Tex., Paris.—W. A. Collins, 213 S. Church St., let contract to Powell & Copeland, 195 N. 16th St., Paris, to erect residence; 33x24 ft.; 2 stories; frame; composition roof; pine and oak floors; cost \$3500; hot-air heat, \$800; electric lights, \$200; electric sidewalk lights, \$125; C. G. Curtiss, Archt., City Nat. Bank Bldg., Paris. Address contractors. (Lately noted.)

Tex., San Antonio.—Chas. A. Krause of Uman, Stearns & Krause, let contract to Conrad Flaig to erect \$25,000 residence; hollow tile and stucco; mosaic tile trim; 10 rooms; living-room, 15x30 ft.; dining-room, 15x20 ft.; \$1500 garage.

Va., Portsmouth.—Wm. C. Johnson let contract to Calvin Johnson to erect 1-story frame bungalow; cost \$2400.

W. Va., Charleston.—Industrial Home Finance Co. (John Lang, D. H. Gates and others) let contract to erect 14 2-story dwellings at Montrose. (Previously noted.)

GOVERNMENT AND STATE

Ala., Anniston.—Library.—National War Library Assn. let contract to Labarre & Erwin to construct \$10,000 library at Camp McClellan; 40x90 ft.

Ala., Montgomery.—Aviation Camp.—War Department, Washington, D. C., let contract to James Alexander Construction Co., Memphis, Tenn., to construct aviation camp near Montgomery.

Ark., Lonoke.—Aviation Camp.—War Department, Washington, D. C., let contract to Stewart-McGehee Construction Co., Little Rock, to construct aviation camp; 2-unit plan to accommodate minimum of 2000 men; plans call for \$2,000,000 expenditure for erection of officers' quarters, barracks, hangars, machine shops, etc. (Previously noted.)

D. C., Washington.—Storehouse.—Bureau of Yards and Docks, Navy Dept., F. R. Harris, Chief, let contract at \$376,751 to Faribault Building Corporation, 15 Park Row, New York, to erect general storehouse and covered annex with crane runway and alterations to building No. 23 at navy-yard. (Lately noted.)

Ga., Atlanta.—Cantonment.—Government let contract to Mackle Construction Co., Atlanta, for all future alterations, additions and repairs at Camp Gordon.

Md., Baltimore.—Immigration Station.—Government let contract to Wm. Dall Co., Fort McHenry, Baltimore, for additional excavation and underpinning wall at immigration station; cost \$3154.

Miss., Shelby.—Postoffice.—J. N. Thomas let contract to C. W. Moore, Como, Miss., to erect building for U. S. Postoffice; brick; metal ceiling; plate-glass fronts; concrete cement floor; tile base; composition roof; cost \$4702.45; lighting fixtures additional; M. M. Alsop, Archt., Clarksdale, Miss.

Mo., Kansas City.—Warehouse.—Belfast Investment Co. let contract to erect bay warehouse to be leased by Government. (See Warehouses.)

N. C., Charlotte.—Library.—War Service Committee of American Library Assn. let contract to erect library building. (See Miscellaneous Structures.)

S. C., Greenville.—Library.—American Library Assn. let contract to Gallivan Build-

ing Co., Greenville, to erect library at Camp Sevier. (See Miscellaneous Structures.)

Tex., Fort Sam Houston.—Camp.—McKenzie Construction Co., San Antonio, Tex., has contract for all alterations and repairs for 6 months at Camp Travis. (Lately noted.)

HOSPITALS, SANITARIUMS, ETC.

N. C., Charlotte.—St. Peter's Hospital Trustees let contract to E. N. Hunter, Charlotte, for improvements to hospital to include remodeling porches, constructing entrance, tile floors, etc.; cost \$2500.

Okla., Sulphur.—State let contract to G. C. Frier, Sulphur, to erect lately noted hospital building; 40x46 ft.; 2 stories; brick walls; asphalt cement roof; cement floors; steam heat; electric wiring; cost \$12,500; Jewel Hicks, Archt., Durant, Okla.; construction begun. (See Machinery Wanted—Roofing.) Warehouses

MISCELLANEOUS

Ala., Anniston.—Library.—National War Library Assn. let contract to erect library at Camp McClellan. (See Government and State.)

Fla., Silver Lake.—Clubhouse.—Country Club, Leesburg, Fla., has plans by and let contract to O. S. Lang, Leesburg, lately noted to erect clubhouse; 65x65 ft.; frame; asphalt stone coated roof; double wood floors; open fireplace; private electric-light plant; concrete and iron foundation; cost \$7000; construct boulevard around lake; provide 18-hole golf course. (See Machinery Wanted—Electric Lighting Plant.)

N. C., Charlotte.—Library.—War Service Committee of American Library Assn. let contract to Consolidated Engineering Co., 243-59 Calvert Bldg., Baltimore, to erect library building at Camp Greene; 40x93 ft.; wood construction; Major Clarence H. Greene, quartermaster in charge of construction.

S. C., Greenville.—Library.—American Library Assn. let contract to Gallivan Building Co., Greenville, to erect library at Camp Sevier; frame; 40x90 ft.; 1 story, ventilator roof and skylight over central portion; covered with roofing paper; side walls sheathed with single-ply tar paper, covered with weatherboard; Edw. L. Tilton, Archt., 52 Vanderbilt Ave., New York. (Lately noted.)

Va., Richmond.—Stables.—C. P. Lathrop & Co. let contract to Julian C. Beazley, Richmond, to erect stable; 75x18 ft.; brick; slag roof; concrete floors; cost \$3000; C. J. Rolker, Archt., Richmond. (Lately noted.)

SCHOOLS

Ala., New Market.—Madison County Board of Public Instruction let contract to A. M. Booth, Huntsville, Ala., to erect \$10,000 school building.

Ark., Little Rock.—School Board, Jas. Dorough, Prest., Little Rock, let contract to erect 2 schools in Dist. No. 19, but indefinitely postponed erection of same; John P. Almand, Archt., Little Rock. (Previously noted.)

Ky., Paducah.—St. Mary's Academy let contract to Bougeno & Morgan, Paducah, to erect addition for chapel, parlors and entrance.

Tenn., Nashville.—Foster & Creighton Co., Nashville, general contractor to erect library for Peabody College, let following sub-contracts: Brick work, Bush Building Co.; plastering, Hopton Bros.; painting, Otto Hylen Co.; waterproofing, Uncle Hiram Roofing Co.; sheet metal work, E. T. Murray & Co.; cork carpets, Castner-Knott Dry Goods Co.; carpentry, Rock City Construction Co.; glass and glazing, Warren Bros.; all of Nashville; roofing, H. W. Johns-Manville Co.; elevators, Otis Elevator Co.; both of New York; general contractor also has contract for reinforced concrete foundation; plans by E. L. Tilton, 52 Vanderbilt Ave., New York, call for 3-story structure; 80x170 ft.; fireproof; steam heat and electric lights from central plant; cost \$150,000. (Other contracts previously noted.)

Tex., China Springs.—China Springs School Board let contract at \$10,900 to Robe Wilson, Mart, Tex., to erect school; hollow tile and brick; Barrett roof; wood floors; 53x56 ft.; Ross & Cason, Archts., Waco. Address contractor. (Lately noted.)

STORES

Ga., Atlanta.—Huylers, New York, let contract to Gude & Co., Atlanta, to remodel Alfriend Bldg. for store; cost \$5000; plans by owner; construction begins Jan. 1. Address contractors.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Fla., Fort Lauderdale.—C. D. Kittredge and Fred. Barrett let contract to John Olsson, Fort Lauderdale, to erect apartment-house on Beach St.; 55x55 ft.; 3 stories; 12 suites; reinforced concrete and hollow tile; asbestos composition roof; wood floors; tile porch; city electric lights; cost \$15,000; gas steam heat, \$500; also let contract to J. L. Gibbons, Fort Lauderdale, to erect apartment-house on River Drive; 55x55 ft.; 3 stories; 12 suites; asbestos composition roof; wood floors; tile porch; city electric lights; cost \$15,000; gas-steam heat, \$500; A. E. Lewis, Archt., Miami, Fla. Address C. D. Kittredge, Fort Lauderdale. (Lately noted.)

Ga., Atlanta.—W. H. Turner let contract to W. H. S. Hamilton, Decatur, Ga., to erect proposed 2-story brick-veneer 4-family apartment-house; plans by Lella Ross Wilburn, 305 Peters Bldg., Atlanta, call for terra-cotta trim; composition shingle and tar and gravel roofs; tile bath floors; 8 hardwood floors; electric lights; steam heat; 4 fireplaces; cost \$12,000.

Mo., St. Louis.—F. L. Cornwell will erect opera-house and apartment-house. (See Theaters.)

BANK AND OFFICE

Ky., Lexington.—Bank of Commerce let contract to Curran Lumber Co., Lexington, to remodel banking quarters; floor construction part ordinary, part reinforced concrete; cost \$12,000; vacuum steam heat from central station \$400; Manley & Young, Archts., Lexington. (Lately noted.)

N. C., Rocky Mount.—First National Bank of Rocky Mount let contract to D. J. Rose, Rocky Mount, to erect bank building; 9 stories; 60x60 ft.; reinforced concrete; fireproof; tar, felt and gravel roof; hollow-tile floors; steam heat; electric lights; electric elevator; cost \$140,000; Mr. Rose let contracts to W. Fred. Casey, Charlotte, N. C., representing following: Ornamental Iron, Price-Evans Foundry Co., Chattanooga, Tenn.; Metal windows, F. O. Schoedinger, Columbus, O.; elevator doors, Zahner Metal Sash & Door Co., Canton, Ohio; Milburn, Helster & Co., Archts., Union Savings Bank Bldg., Washington; also let contract to John J. Morton Co., Charlotte, N. C., for cut stone, granite base and Indiana limestone facing; Atlantic Marble & Tile Co., Charlotte, marble and tile; Southern Building Material Co., Norfolk, Va., ornamental terra cotta. (Previously noted.)

Tenn., Rockwood.—First National Bank let contract to J. E. Allen, Rockwood, to erect bank and office building; brick; terra-cotta and concrete; Carey magnesia roofing; terrazzo floors; vacuum vapor heat (Bishop-Babcock-Becker); cost \$30,000; Manley & Young, Archts., Knoxville, Tenn., and Lexington, Ky. (Previously noted.)

CHURCHES

Tex., Arlington.—Arlington Presbyterian Church let contract to W. C. Weeks, Arlington, to erect building; 64x100 ft.; concrete and brick; wood floors; electric lights; heating and roofing not determined; cost \$15,000; S. Nelson, Archt., Arlington; construction begins March 1. Address Rev. S. M. Bennett, Pastor. (Lately noted.)

Tex., Waxahachie.—Central Presbyterian Church let contract to W. W. Walston, Waxahachie, to erect church and Sunday-school building; 70x110 ft.; 2 stories and basement; concrete, brick, steel supports and wood; slate or composition shingle roof; cement, wood and tile floors; cost including mechanical equipment \$50,000; steam heat about \$5000; wiring \$1500; C. D. Hill & Co., Archts., Dallas, Tex. Address contractor. (Previously noted.)

DWELLINGS

Ala., Montgomery.—Mrs. K. G. Crumpton let contract to A. C. Greeson, Montgomery, to erect residence; colonial type; 7 rooms.

Ark., Little Rock.—R. E. Overman let contract to Thalman & Reed, Little Rock, to erect residence; 30x60 ft.; frame and stucco; tile and composition roof; yellow pine and oak floors; natural gas heat; electric lights; cost \$3000; Mann & Stern, Archts., Little Rock; all materials purchased. (Thalman & Reed lately noted to erect residence.)

Fla., Fruitland Park.—Fred Berry let contract to O. S. Lang, Leesburg, to erect bungalow; frame; 6 rooms; plastered; screened porches; fireproof; barn 16x32x16 ft.

Fla., St. Petersburg.—Herman Dann let contract to Carson & Drather to erect residence in Roser Park.

Fla., St. Petersburg.—J. F. Proper let contract to J. A. Kohler, 606 Seventh St. N., St. Petersburg, to erect residence and garage; 5 rooms; 2 stories; 24x24 ft.; frame; asphalt fire-resisting roof; yellow pine floors; kitchen, bath and porch Spanish tile; gas heaters in each room; cost \$1500; electric wiring, \$65; sidewalk, \$85; Mrs. J. A. Kohler, Archt., St. Petersburg. Address contractor. (Lately noted.)

Fla., West Palm Beach.—Mrs. A. Best let contract to Ben Hoffman, West Palm Beach, to erect residence; 2 stories; stucco; cost \$5000.

Ga., Atlanta.—Charles Houston let contract to erect dwelling; stucco; composition shingle roof; tile terrace; brick mantels; Bleeckley & Irvin, Archts., King Bldg., Atlanta.

Ga., Augusta.—James Grogan let contract to Lawrence Construction Co., Augusta, to erect \$3000 dwelling.

Md., Baltimore.—Montebello Park Co. let contract to P. P. Day, 163 Montebello Ter., Baltimore, to erect frame dwelling on Harford Ave., near Park View Ter.; 2½ stories; 24x46 ft.; cost \$4000; Stanislaus Russell, Archt., Cordova Apartments, Baltimore.

Ga., Atlanta.—W. B. Hall let contract to C. W. Donaldson, Atlanta, to erect 2-story reinforced concrete building; cost \$2700.

Md., Baltimore.—Carl D. Cottman let contract to Consolidated Engineering Co., 243-59 Calvert Bldg., Baltimore, to erect 1-story store building, 970 N. Howard St.; brick.

Md., Baltimore.—Leopold Segls, 225 W. Fayette St., let contract to W. F. Hildey, Norwood Ave. and East Ferndale St., Baltimore, for improvements at 316-18 W. Lexington St.; Blanke & Zink, Architects, 835-37 Equitable Bldg., Baltimore. (Lately noted.)

N. C., Charlotte.—C. M. Carson let contract to J. P. Propst, Charlotte, to erect addition to Pound & Moore Co.'s store; 33x32 ft.; cost \$4000.

Tex., Dallas.—Edward Gray let contracts to repair and replace burned structures at 1501-03-05-07 Elm St.; brick and terra-cotta construction; theater on corner 50 ft., mercantile on balance of site; freight elevators in structure at 1505-07; cost \$35,000; Gilsonite Construction Co., Dallas, Contr., and C. D. Hill & Co., Dallas, Architects, for theater building; Childs & Laselle, Dallas, Contrs. for mercantile building. (Lately noted.)

THEATRES

Mo., St. Louis.—F. L. Cornwell, La Salle Bldg., has plans by H. J. Harker, 810 Chestnut St., for opera-house and apartment building; 9 stories; 175x326 ft.; cost \$900,000. (Contract lately reported let to Francis Construction & Realty Co., 400 Beallviere Ave., St. Louis.)

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

"WANTS"

Alternator Sets.—United Machine Works, 416 Bleecker St., New York.—To buy two 200 K. W. 3-phase 60-cycle 480 or 2200 volts con or non-condensing steam alternator sets.

Belting.—Kerr Bros., Pennsboro, W. Va.—Prices on belting for lathe.

Blacksmith-shop Equipment.—American Gas Coal Co., 408 Frick Bldg., Pittsburgh, Pa.—Prices on blacksmith-shop equipment. See Mining Machinery.

Boiler.—Southern Drainage & Construction Co., Bayboro, N. C.—Prices on 75 to 100 H. P. locomotive type boiler; must pass inspection for 125 lbs. working pressure.

Boilers.—Helen Mineral Co., S. L. Boggs, Gen. Mgr., Ivanhoe, Va.—Prices on boilers. See Mining Machinery.

Boilers (on Wheels).—Easton Machinery Co., Drake Bldg., Easton, Pa.—Prices on 30 to 50 H. P. boilers on wheels.

Boilers (Locomotive Type).—R. S. Byron, 702 Hennen Bldg., New Orleans, La.—Prices on one 125 H. P. and one 54-in. locomotive type boilers.

Brass and Brass Tubing, etc.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Dec. 11 for delivering brass, files and brass valve tubing at navy-yard, Norfolk. Apply for proposals to supply officer, navy-yard, Norfolk, or to Bureau.

Brass Tubing, Phosphor-Bronze, etc.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Dec. 11 for delivering brass, phosphor-bronze and seamless brass tubing at navy-yard, Washington, D. C. Apply for proposals to Bureau.

Brick.—Industrial Home Finance Co., Louis Daniel, Secy., Charleston, W. Va.—Prices on brick.—See Building Materials.

Bridge Construction.—Board of Affairs, Albert J. Kern, City Clerk, Fairmont, W. Va.—Bids until Dec. 12 to construct reinforced concrete bridge over Monongahela River; total length, 1320 ft.; width, 56 ft.; 3 main reinforced concrete arches, each having 2 ribs and clear span of 250 ft.; approaches to include number of shorter reinforced concrete girder and slab spans; roadway grade, 96 ft. above pool elevation; river being navigable at bridge site, will be necessary to maintain channel of satisfactory width and height during construction.

Tex., Dallas.—Edward Gray let contract to Gilsonite Construction Co. to repair and replace theater building at 1501 Elm St.; C. D. Hill & Co., Architects, Dallas. (See Stores.)

WAREHOUSES

D. C., Washington.—Merchants Transfer & Storage Co. let contract to S. J. Prescott Co., 814 Thirteenth St. N. W., Washington, to erect storage building; 75x100 ft.; brick and reinforced concrete; all sub-contracts let; cost \$27,000; A. P. Clark, Jr., Archt., Equitable Bldg., Washington.

Md., Baltimore.—F. Lipps Co. let contract to E. G. Turner, 15 E. Fayette St., Baltimore, to remodel warehouse on Hollins St., near Calverton Rd.; 4 stories; 72x93 ft.; J. F. Helker, Archt.

Md., Baltimore.—Security Storage & Trust Co. let contract to W. T. Childs, 14-16 W. 20th St., Baltimore, to erect 6-story addition to building at 13-19 W. North Ave.; 22x65 ft.; F. E. Beall, Archt., 306 St. Paul St.

Md., Baltimore.—J. G. Lamp, 3406 Park Heights Ave., will erect 1-story brick storage building, 607-9 S. Bethel St.; 37x115 ft.; George Kitchen, Contr.

Mo., Kansas City.—Belfast Investment Co. let contract to C. C. Smith, Midland Bldg., Kansas City, to erect hay warehouse to be leased by Government; 96x912 ft.; capacity 10,000 tons baled hay; fireproof; firewalls partitions 200 ft. apart; tile; gravel roof; wood floors; cost \$75,000; install \$50,000 compress. (Lately noted.)

delphia, Pa.—100 tank cars of 8000 gals. capacity for lease.

Cars (Dump).—R. S. Byron, 702 Hennen Bldg., New Orleans, La.—Prices on 10 12-yd. Western dump cars; good condition.

Castings (Die).—J. G. Falls & Co., Falls Bldg., Memphis, Tenn.—Die castings of base and upper arm of gin saw sharpener; casts to be of an alloy of strength of malleable iron; each part weighs fraction under one pound.

Cement.—Industrial Home Finance Co., Louis Daniel, Secy., Charleston, W. Va.—Prices on cement.—See Building Materials.

Compressor (Air).—Page Nulling Co., Luray, Va.—Air compressor to inflate auto tires or tubes; compressor for deep well pumping.

Comforters (or Quilts) Machinery.—Perfection Mattress & Spring Co., Birmingham, Ala.—Data and prices on comfort-making machinery.

Concentrating Machinery.—Helen Mineral Co., S. L. Boggs, Gen. Mgr., Ivanhoe, Va.—Prices on concentrating machinery.—See Mining Machinery (Lead and Zinc.)

Contractor's Equipment.—A. W. Connelly, Jacksonville, Fla.—Cash prices on contractor's equipment, including concrete mixers, dump wagons, railroad track, locomotives, derricks, hoisting engines, caterpillar tractors, diaphragm pump, pile drivers, etc. Give full details on condition, point of shipment, delivery, etc.

Cotton Compress.—Lufkin Cotton Compress Co., J. F. Christian, Mgr., Lufkin, Tex.—Prices on good second-hand 200-ton cotton compress; buy within 30 or 60 days. (Has boiler plant.)

Cotton Gin Machinery.—D. W. Garrish & Son, Scranton, N. C.—Prices on cotton gin machinery.

Crane (Locomotive).—United States Maritime Corp., Brunswick, Ga.—8-wheel 15-ton locomotive crane.

Crockery, etc.—C. D. Davies, manufacturers' agent, care J. W. Stephens, 334 Fifth Ave., New York.—Addresses of manufacturers of crockery and enamelware.

Crusher (Rock).—Uvalde Rock Asphalt Co., 411 Swearingen-McGraw Bldg., Houston St. and Alamo Plaza (P. O. Box 958), San Antonio, Tex.—Prices on very large jaw or gyratory rock crusher.

Derricks.—A. W. Connelly, Jacksonville, Fla.—Prices on derricks. (See Contractor's Equipment.)

Dryers (Ore).—Flaketown Graphite Co., Mountain Creek, Ala.—Correspondence with manufacturers of dryer for drying ore with use of oil.

Electric Lighting Plant.—O. S. Lang, Leesburg, Fla.—Information on electric-light plant for \$7000 clubhouse.

Electrical Equipment.—W. A. Carver, Rougemont, N. C.—Prices on new and second-hand first-class electric generator, capacity 75 to 100 H. P.; motors 10 to 30 H. P.; wire, fittings, etc. (excepting poles) to convey power 1 to 2 mi.; also lights for residence; prices on iron or steel pipe 24 to 30-in. diam.

Electrical Equipment.—Port Arthur Laundry Co., 4th and Fort Worth St., Port Arthur, Tex.—Prices on electrical equipment.

Electrical Material.—Navy Department, Bureau Supplies and Accounts, Washington, D. C.—3000 ft. single-conductor copper cable; 15,000 ft. incandescent lamp cord; 6000 ft. lighting and power wire; 400 ft. 3-conductor, rubber-covered wire, Schedule 1591; 1500 ft. 2-conductor, electric wire, Schedule 1592; 62,000 ft. lighting and power wire; single-conductor, lighting and power wire; 550 lbs. magnet wire, and 20 lbs. nickel-chromium, resistance wire, Schedule 1593, delivery Puget Sound; 27,500 ft. interior communication cable, Schedule 1593, and dry coils, Schedule 1604, various deliveries; 400,000 ft. ship-lighting cable; 225,000 ft. rubber-insulated, single lead-covered wire, and 250,000 ft. duplex, rubber-covered wire, Schedule 1591; 70,000 ft. fire control, telephone cord; 12,000 ft. high-tension wire; 250,000 ft. plain, single-conductor wire, and 45,000 ft. plain, single-conductor wire, Schedule 1593; motor generator sets, Schedule 1596; 750,000 ft. silicon bronze antenna wire, Schedule 1592, delivery Brooklyn; 60,000 ft. leaded and armored wire; 60,000 ft. double-conductor, portable wire, and 30,000 ft. 2-conductor wire, Schedule 1593, delivery New Orleans.

Heating System.—Dept. of Interior, Office of Indian Affairs, Cato Sells, Commr., Washington, D. C.—Bids until December 27

to install steam-heating system in Shawnee (Okla.) Indian School; plans and specifications on file in United States Indian Warehouses, St. Louis, Mo., and Chicago, Ill.; Builders' Exchange, St. Paul, Minn., and office Supt. Indian School, Shawnee; for further information address Supt. of Shawnee School.

Elevator.—Bluefield Telephone Co., Bluefield, W. Va.—Prices on elevator for 3-story \$15,000 storage building.

Elevator.—Bleckley & Irvin, Augusta, Ga. Bids on 6x6-ft. 2000-lb. capacity hand-power elevator.

Emery Stone.—Page Milling Co., Luray, Va.—Emery stone for general tool work.

Enamelware.—See Crockery, etc.—C. D. Davies.

Engines.—Helen Mineral Co., S. L. Boggs, Gen. Mgr., Ivanhoe, Va.—Prices on engines. See Mining Machinery.

Engine (Hoisting).—Mobile Electric Co., Mobile, Ala.—Prices on 3-drum hoisting engine complete, with slewing device, capacity 6000 lbs. on single line; to be fully equipped with motor, either 230-volt, D. C., or 230-volt, 3-phase, 60-cycle; controllers included.

Evaporating or Extracting Machinery (Mineral Waters).—Southern Motor Sales Co., Somerset, Ky.—Data and prices (for customer) on equipment for evaporating or extracting minerals from mineral water for medical purposes.

Excavator (Drag Line).—Stout's Mountain Coal Co., Chas. F. Wheelock, Mgr., 1818 American Trust Bldg., Birmingham, Ala.—Prices on drag-line excavator, 75 to 80-ft. boom, fitted 2 to 2½-bucket. (See Mining Machinery.)

Furniture.—C. D. Davies, manufacturers' agent, care J. W. Stephens, 334 Fifth Ave., New York.—Addresses of manufacturers of common cane-seat chairs and other furniture.

Generating Sets (Electric, etc.)—Office Commrs. Dist. of Columbia, Washington, D. C.—Bids until Dec. 12 to furnish and erect 2 electric generating sets, etc., for use at Home for Aged and Infirm; specifications and proposal forms from Purchasing Officers, D. C., Room 330, District Bldg.

Grist Mill Machinery.—D. W. Garrish & Son, Scranton, N. C.—Prices on grist mill machinery.

Heating Plant.—Bluefield Telephone Co., Bluefield, W. Va.—Prices on hot-water heating plant for \$15,000 warehouse.

Hobby-horses Machinery.—Bender Box Mfg. Co., Huntington, W. Va.—Data and prices on machinery to manufacture hobby horses; wire answer.

Hoists.—Easton Machinery Co., Drake Bldg., Easton, Pa.—Prices on two 7x10 D. D. skeleton hoists.

Hoist (Electric).—Union Foundry Co., Anniston, Ala.—Electric hoisting machine; for 6000-lb. load, 25-ft. lift, 50 ft. per minute, 220-volt, 60-cycle, A. C.

Hoists (Mine).—Costanzo Coal & Mining Co., Constantino Carignano, Pres., McAlester, Okla.—Prices on 2000-ton capacity hoisting apparatus.

Hosiery.—C. D. Davies, manufacturers' agent, care J. W. Stephens, 334 Fifth Ave., New York.—Addresses of manufacturers of hosiery. (See Crockery, etc.)

Indicator (Engine).—Page Milling Co., Luray, Va.—Steam indicator for testing Corliss and slide-valve engine.

Iron-bending Machinery, etc.—See Hobby-horse Machinery.—Bender Box Mfg. Co.

Kiln.—Maryland Equipment & Supply Co., Equitable Bldg., Baltimore, Md.—7x12½-ft. kiln.

Lathes (Engine).—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Dec. 11 for delivering engine lathes at Naval Academy, Annapolis. Apply for proposals to Bureau.

Levee Construction.—Louisiana Board State Engineers, Frank M. Kerr, Chief State Engr., 213 New Orleans Court Bldg., New Orleans.—Bids until Dec. 10 to construct levee, parish of Caddo, Red River, right bank; 12-mi. bayou dyke, contents about 65,000 cu. yds.; other information obtainable from office Board State Engrs.

Lighting.—R. T. Barnes, 1516 W. Cameron St., Tulsa, Okla.—Prices on electric fixtures for \$3500 residence.

Loading Machinery (Cars; Sand).—Goldsboro Sand & Gravel Co., Box 345, Goldsboro, N. C.—Prices on second-hand Byers' auto crane or other machinery for loading sand on cars; first-class condition.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Locomotive.—Stout's Mountain Coal Co., Chas. F. Wheelock, Mgr., 1818 American Trust Bldg., Birmingham, Ala.—Prices on 50 to 60-ton standard gauge locomotive. (See Mining Machinery.)

Locomotives.—A. W. Connelly, Jacksonville, Fla.—Prices on locomotives. (See Contractor's Equipment.)

Lumber.—Industrial Home Finance Co., Louis Daniel, Secy., Charleston, W. Va.—Prices on lumber.—See Building Materials.

Machine-shop Equipment.—Page Milling Co., Luray, Va.—Forge, anvil, 6-in. vise, drill press, etc., for general work-shop.

Machine Tools.—United States Maritime Corp., Brunswick, Ga.—Combination punch and shear, capacity 1½ round and ¾ flat bar, short gap, belt drive; 3-ft. radial drill; 20x12-in. modern engine lathe; double emery wheel stand to swing 12-in. wheels.

Manufactured Products.—Southern Supply Co., 314 Millsaps Bldg., Jackson, Miss.—Correspondence with manufacturers; view to representation on commission basis; cover South Mississippi and North Louisiana.

Matches.—C. D. Davies, manufacturers' agent, care J. W. Stephens, 334 Fifth Ave., New York.—Addresses of manufacturers of matches. (See Crockery, etc.)

Metal-working (Punching, Shaping and Twisting) Machinery.—Prock Mfg. Co., F. F. Cain, Secy., Erick, Okla.—Prices on machines for shaping, punching and twisting light cold iron.—See Yoke Machinery.

Mining Machinery (Coal).—Richlands Coal Corp., McBain Bldg., Roanoke, Va.—Bids on mining machinery.

Mining Machinery (Coal).—American Gas Coal Co., 408 Frick Bldg., Pittsburgh, Pa.—Prices (for immediate purchase) on mining machinery, carpenter shop, blacksmith shop, power-house, fanhouse, mine timber for installation Monongalia County, W. Va.

Mining Machinery (Coal).—Stout's Mountain Coal Co., Chas. F. Wheelock, Mgr., 1818 American Trust Bldg., Birmingham, Ala.—Prices on 100 26-in.-gauge mine cars; 30 tons 30-lb. relay rail; 25 tons 16-lb. relay rails; 100-ton track scale; 50 to 60-ton standard gauge locomotive; drag-line excavator with 75 to 80-ft. boom, fitted 2 to 2½-yd. bucket; for installation Hanceville, Ala.

Mining Machinery (Lead and Zinc).—Eleven O'clock Mining Co., A. A. Pinegar, Mgr., Quapaw, Okla.—Data and prices on mining machinery for lead and zinc.

Mining Machinery (Lead and Zinc).—Helen Mineral Co., S. L. Boggs, Prest. and Gen. Mgr., Ivanhoe, Va.—Prices on steam and electric machinery; boilers; engines; motors; pumps; concentrating machinery; pipe, etc.

Mining and Washing Machinery.—Marshall Haney, Conslt. Mining Engr., Lydia, Va.—Catalogs and prices on machinery and supplies for mining and washing kaolin.

Mixers (Concrete).—A. W. Connelly, Jacksonville, Fla.—Prices on concrete mixers. (See Contractor's Equipment.)

Motors (Electric).—See Mining Machinery (Lead and Zinc)—Helen Mineral Co.

Motor (Electric).—Mobile Electric Co., Mobile, Ala.—220-volt, D. C., or 220-volt, 3-phase, 60-cycle electric motor with controllers. (See Engine (Hoisting).)

Oil-refinery Material.—Real Oil Co., Walter Benson, Prest., 306 Patterson Bldg., Oklahoma City, Okla.—Prices on all material for refinery.

Oil Refinery.—Frank Beauman, Beaver Valley Oil & Refining Co., Waurika, Okla.—To correspond with firms or contractors relative to bids on 1000-bbl. refinery complete.

Paving.—City of Kaufman, Tex., W. L. Mulkey, City Secy.—Bids until Dec. 17 to construct 3298.44 sq. yds. paving on E. Mulberry St.; W. E. Pickard, Mayor.

Paving.—City of Pulaski, Va., E. W. Calfee, Mayor.—Bids until Dec. 4 to grade and macadamize 1338 ft. of street through property of Pulaski Iron Co.; also build combination concrete sidewalk and gutter on north side of proposed street; 4200 sq. yds. macadam, 10,000 sq. ft. concrete and 1000 yds. grading; plans and specifications at City Engr.'s office.

Pile Drivers.—A. W. Connelly, Jacksonville, Fla.—Prices on pile drivers. (See Contractor's Equipment.)

Pipe.—Jackpot Oil & Gas Producing Co., Frank P. Strickland, Mgr., Berryhill Bldg., Sapulpa, Okla.—Prices on 8½, 6½, 10 and 12-in. pipe.

Pipe (Oil Well).—Hollis Oil & Gas Co., Hollis, Okla.—Prices on 6, 8 and 10-in. casing.

Pipe (or Culverts).—Webster County Court, P. J. McGuire, Clerk, Webster Springs, W. Va.—Bids Dec. 28 on drainage pipe. (See Road Construction.)

Pipes.—C. D. Davies, manufacturers' agent, care J. W. Stephens, 334 Fifth Ave., New York.—Addresses of manufacturers of pipes. (See Crockery, etc.)

Piping.—A. Greenberg & Son, Danville, Va.—600 ft. 6-in. iron pipe for water main; new or second-hand; good condition.

Piping.—United States Maritime Corp., Brunswick, Ga.—2600 ft. 8-in. flanged pipe, 500 ft. 12-in.

Piping.—Carhoma Petroleum Co., 904 Campbell Bldg., Oklahoma City, Okla.—Prices on piping for oil wells.

Plaster.—Industrial Home Finance Co., Louis Daniel, Secy., Charleston, W. Va.—Prices on plaster.—See Building Materials.

Plumbing Fixtures.—R. T. Barnes, 1516 W. Cameron St., Tulsa, Okla.—Prices on plumbing fixtures for \$3500 residence.

Power-house.—See Mining Machinery (Coal)—American Gas Coal Co., 408 Frick Bldg., Pittsburgh, Pa.

Pulverizing Mill.—Maryland Equipment & Supply Co., Equitable Bldg., Baltimore, Md.—42-in. Fuller pulverizing mill.

Pump.—United States Maritime Corp., Brunswick, Ga.—1000-gal. underwriters' pump.

Pumps.—Helen Mineral Co., S. L. Boggs, Gen. Mgr., Ivanhoe, Va.—Prices on pumps. See Mining Machinery.

Pump (Diaphragm).—A. W. Connelly, Jacksonville, Fla.—Prices on diaphragm pump. (See Contractor's Equipment.)

Rail.—Stout's Mountain Coal Co., 1818 American Trust Bldg., Chas. F. Wheelock, Mgr., Birmingham, Ala.—Prices on 30 tons 30-lb. and 25 tons 16-lb. relay rails. (See Mining Machinery.)

Road Construction.—Webster County Court, P. J. McGuire, Clerk, Webster Springs, W. Va.—Bids until Dec. 28 to construct 4 mi., portion Class A road, from Webster Springs to Randolph County line; also 3 mi. on Class A road from Webster Springs to Cleveland; plans, specifications, etc., on file office of Clerk County Court; at same time Court will receive bids for drainage pipe and general road construction equipment.

Road Construction Materials.—Webster County Court, P. J. McGuire, Clerk, Webster Springs, W. Va.—Bids Dec. 28 on equipment for general road construction. (See Road Construction.)

Road Construction.—Spartanburg County Highway Commission, John A. Law, Chrmn., Spartanburg, S. C.—Bids until Dec. 10 to construct on National Highway, from end of Section A, toward Greer, 12.06 mi., known as Section B; 20-ft. topsoil roadway in Spartanburg, Reidsville and Beach Springs townships; plans at offices of Reid Tull, County Engr., Spartanburg, and of State Highway Commission, Union National Bank Bldg., Columbia, S. C., and are obtainable for \$5.

Road Construction.—Baldwin County Commrs., Bay Minette, Ala.—Bids until Dec. 31 to construct 4 mi. Bay Minette and Daphne Rds., being part of State Trunk Rd. No. 11, between Stapleton and Daphne; 12,000 cu. yds. earth excavation and 510 lin. ft. pipe; plans and specifications on file with State Highway Dept., Montgomery, and with Judge of Probate, Courthouse, Bay Minette; additional information from W. S. Keller, State Highway Engr., Montgomery.

Road Construction.—Okmulgee County Commrs., Harry Hart, Chrmn., Okmulgee, Okla.—Bids until Dec. 17 to grade, construct culverts and pave 118 mi. of roads; alternate bids on brick with concrete base, concrete bitulithic, asphaltic concrete and bituminous macadam pavement; also bids for materials delivered, for construction of pavements with materials furnished by county and for furnishing materials and constructing complete pavements; roads divided into 19 sections of from 5 to 8 mi. each; bids received on each section or on group of sections; plans, specifications and profiles on file with County Clerk or with Howard, Harrington & Ash, 1012 Baltimore Ave., Kansas City, Mo.; specifications, bidding forms, etc., obtainable from Conslt. Engrs. for \$5.

Road and Bridge Construction.—Spartanburg County Highway Commission, John

A. Law, Chrmn., Spartanburg, S. C.—Bids until Dec. 10 to construct 3½ mi. 20-ft. topsoil road on Fair Forrest Rd., Contract No. 6, and in connection with Contract No. 7, bids for construction of 5 concrete bridges; plans and specifications obtainable offices of Reid Tull, County Highway Engr., or of T. S. Perrin, Secy., Highway Commission, after Dec. 1.

Roofing.—G. C. Frier, Sulphur, Okla.—Material for 20 squares asphalt cement composition roofing.

Roofing.—Lufkin Cotton Compress Co., J. F. Christian, Mgr., Lufkin, Tex.—Prices on roofing.

Rutile.—F. W. O'Brien, Whitestone, Ga.—Prices on rutile; state in what quantities can deliver.

Safes.—Merchants & Miners' Bank of Junior, A. K. Perry, Acting Secy., Junior, W. Va.—Prices on safes for bank building.

Sawmill Machinery.—D. W. Garrish & Son, Scranton, N. C.—Prices on sawmill equipment.

Scale (Track).—Stout's Mountain Coal Co., Chas. F. Wheelock, Mgr., 1818 American Trust Bldg., Birmingham, Ala.—Prices on 100-ton track scale. (See Mining Machinery.)

Shingle-mill Machinery.—Box 727, Thomasville, Ga.—Prices on 2 second-hand shingle machines to cut 20-in. pine and cypress shingles; for installation in Florida.

Shirts.—C. D. Davies, manufacturers' agent, care J. W. Stephens, 334 Fifth Ave., New York.—Addresses of manufacturers of shirts. (See Crockery, etc.)

Steam and Electric Equipment.—See Mining Machinery (Lead and Zinc)—Helen Mineral Co.

Steam Feed.—Chas. A. McLean, 412 Citizens Bank Bldg., Norfolk, Va.—Dealers' prices on good second-hand 12-in. steam feed.

Steel Bars.—Salem Iron Works, Winston-Salem, N. C.—To correspond with manufacturers who can produce small parts which require spot welding; these are steel bars with pins spot welded on; bars also

to be hardened sufficiently to make them stiff and prevent bending.

Tester (Gauge).—Page Milling Co., Luray, Va.—Pressure-gauge tester.

Track (Railway).—A. W. Connelly, Jacksonville, Fla.—Prices on railroad track. (See Contractor's Equipment.)

Tank (Wood).—Kerr Bros. Machine Co., Pennsboro, W. Va.—Prices on wooden tank, 50 or 75 barrels capacity.

Timber (Mine).—American Gas Coal Co., 408 Frick Bldg., Pittsburgh, Pa.—Prices on mine timber.—See Mining Machinery.

Ventilating Sets, etc.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Dec. 11 for delivering portable ventilating sets and galvanized-iron sheaves at navy-yard, Portsmouth, N. H. Apply for proposals to supply officer, navy-yard, Portsmouth, or to Bureau.

Vinegar Machinery.—Paul T. Davis, Watkins Bldg., Orlando, Fla.—To correspond with makers of or dealers in machinery for manufacturing vinegar.

Wagons (Dump).—A. W. Connelly, Jacksonville, Fla.—Prices on dump wagons. (See Contractor's Equipment.)

Washing (Kaolin) Machinery.—Marshall Haney, Lydia, Va.—Catalogs and prices on machinery and supplies for mining and washing kaolin.

Water-wheel.—W. M. Stephenson, 1303 Southwestern Life Bldg., Dallas, Tex.—Prices on small water motor or water-wheel; about 12 in. diam.

Well-drilling Machinery.—Carhoma Petroleum Co., 904 Campbell Bldg., Oklahoma City, Okla.—Prices on drilling machinery for oil wells.

Woodworking Machinery.—See Hobby-horse Machinery.—Beader Box Mfg. Co.

Yoke Machinery (Cattle Yokes).—Prock Mfg. Co., F. F. Cain, Secy., Erick, Okla.—Prices on machines for shaping, punching and twisting light cold iron; also prices on construction of special machinery to manufacture patent cow yoke or poke, output not less than 500 yokes daily.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Sheffield.—Louisville & Nashville R. R. and Southern Ry. are reported to have begun construction of a 5-mi. connecting railroad from their lines at Sheffield to the Federal Government nitrate plant site and the site of Dam No. 2 on the Tennessee River. H. C. Williams, Louisville, Ky., is Ch. Engr. of Constr. of the former, and W. H. Wells, Washington, D. C., of the latter.

Fla., Arcadia.—Atlantic Coast Line is considering possible construction of a branch from Arcadia to the proposed Government aviation camp, 6 mi. J. E. Willoughby, Wilmington, N. C., is Chief Engr.

Ky., Blackey (P. O. Indian Bottom).—Louisville & Nashville Railroad is reported to have let contracts to J. T. Thompson of Knoxville, Tenn., and C. B. Donaghy of Cincinnati, Ohio, to build its proposed line from Blackey up Rockhouse Creek to Caudill's Branch, 18 mi., to develop coal mines. H. C. Williams, Louisville, Ky., is Chief Engr. of Construction.

Md., La Plata.—Contract is reported let to W. J. Torrington, 1524 Chestnut St., Philadelphia, Pa., to build single track railroad at the United States Naval Proving Grounds, Indian Head, Md.

S. C., Greenville.—Extensive repairs to the roadbed and trestles of the Greenville & Western Railway are proposed. Capt. V. E. McBee is receiver.

S. C., Spartanburg.—Contract let by Piedmont & Northern Railway to Porter & Boyd of Charlotte, N. C., covers 1-mi. spur from main line near Spartanburg to Camp Wadsworth, including one wooden trestle. F. B. Hendricks, Charlotte, is Chief Engr.

Tenn., Memphis.—Double tracking between Memphis and Vicksburg is one of the improvements contemplated by the Yazoo & Mississippi Valley Railroad of the Illinois Central System and which recently applied for an increase of its capital stock. A. S. Baldwin, Chicago, is Chief Engr.

Tex., Houston.—Southern Pacific Lines contemplate relaying approximately 335 mi. of line between Houston and El Paso next year with 90-lb. rail in place of 75 and 80-lb.

rail now in track. G. S. Wald, Houston, is V.-P. and Gen. Mgr.

W. Va., Charleston.—Charleston-Dunbar Traction Co., it is reported, will build an extension from Dunbar to the proposed Dupont plant, about 6 mi. Fred. Paul Grosscup of Charleston is Prest.

STREET RAILWAYS

Ga., Valdosta.—Valdosta Street Railway Co. has begun construction of a belt-line loop. T. J. Christie is Mgr.

Md., Cumberland.—Cumberland Electric Railway Co. proposes to extend its line to the Kelly-Springfield Tire Co.'s plant. Geo. L. Wellington is Prest.

Tex., Dallas.—The City Commission has approved the extension and improvement plans of the Dallas Ry. Co. About \$1,000,000 is to be spent. Richard Merlwether is Gen. Mgr.

TRADE-LITERATURE

Dockham's Directory.

The tenth edition of Dockham's American Report and Directory of the Clothing Manufacture and Cutting-Up Trade in the United States for 1917-1918 has just been issued by the Dockham Publishing Co., 6 Beacon St., Boston, Mass. It includes the names and addresses of manufacturers of clothing, aprons, awnings, tents, sails, flags, boots and shoes, cloaks and suits, collars and cuffs, corsets, gloves and mittens, hats and caps, mattresses, neckwear, overalls, pants, rubber goods, shirts, skirts, suspenders, garters, etc.; trunks and bags, umbrellas, underwear, waists, window shades, wrappers and dresses; also the names and jobbers of several of the foregoing manufactured articles, besides cloths, cassimeres, dry goods, fancy goods, hosiery, knit goods, men's furnishings, millinery, notions, overalls, pants, silks, tailors' trimmings, woollens, etc.; also converters of cotton goods, and department stores, New York offices. The price of the volume, which is handsomely bound in red cloth, is \$6.

How To Reach The People

WHEN Rev. Newell Dwight Hillis' great lecture—"Germany's War Plans and Her Atrocities in Belgium and France"—was delivered by him on two occasions in Baltimore his audiences were thrilled by the awful realities described by him. We hope Dr. Hillis will tour the country and deliver his message in person. If he does, we hope every man and woman in the cities and nearby towns, hamlets and rural districts will go to hear him.

In the meantime, numerous suggestions have reached us of how his great message could reach the people, in order that the masses of our people may be awakened to the fact that we are actually at war and what we are fighting against. This is something in which everyone can help.

Every Soldier and Sailor should read it.

At the time of reading this article it struck me that every soldier and sailor should read it or have it read to them. I sent it to my younger brother at Camp —. He succeeded in having it generally read among his comrades. *Leslie Metcalf, New Orleans, La.*

Please send me 300 copies by express. They are for Government use. *George H. Shepard, Assistant Engineer, U. S. Navy, Retired, Norfolk, Va.*

I wish every soldier in every cantonment in the United States could have a copy. I am sure if they were well informed on the atrocities of Germany there would be nothing that would keep them on this side the ocean, or could keep them from going "over the top." *J. G. Anderson, Jr., Secy.-Treas., Tampa Coal Co., Tampa, Fla.*

Every Preacher should read it.

I wish to speak to my people from time to time upon the causes, needs and obligations and inspirations to service of this war. I, therefore, write for a copy of this pamphlet. *C. E. N. Hall, Parsonage, Frankford, W. Va.*

The rector of one of Baltimore's leading Episcopal churches omitted his sermon and read this pamphlet from beginning to end.

I loaned one copy to the Presbyterian minister, who used it in his sermon last Sunday, and he told me afterward that I would never get it back. Please send by return mail ten more copies. *Dr. E. M. Murphy, Macon, Miss.*

Every Lodge Member should read it.

Have heard this pamphlet read in this lodge and believe our passing them around may enlighten many in this section of conditions of which we are not aware. *D. Norman Hemion, R. S. Pilgrim Lodge No. 202, I. O. O. F., Arlington, N. J.*

Every Y. M. C. A. Worker should read it.

Send us 100; we are starting a campaign for raising more money for the Y. M. C. A. and Training Camp Activities, and it is my desire that every worker should have a copy of this article. *S. A. Fones, Joplin, Mo.*

Send me 500 first mail (Telegram) *W. G. Branham, Chairman, District Y. M. C. A. Committee, Durham, N. C.*

Kindly mail at once 100 copies to be used in Y. M. C. A. for war work fund. (Telegram) *Newport Culvert Co., Newport, Ky.*

Dr. Hillis' lecture is in pamphlet form and can be secured for distribution at \$4.00 a hundred from Manufacturers Record, Baltimore, Md.

Every School Teacher should read it.

I know of a music teacher, an instructor in the public schools of this city, who is a mighty lukewarm American. I think these pamphlets which I intend sending her will do a great deal of good. *Arthur Ducoing, New Orleans, La.*

As chairman of the Ouachita Council of Defense, I wish to put this pamphlet in the hands of each member of our Parish School Board—Police, Jury and principal of each Public School in the County. *John T. Bryant, Monroe, La.*

Every Fourth-class Postmaster should read it.

Send us 200. The rank and file of people in this country are asleep to the terrible European situation, and we want to do our bit to awaken them. Every fourth-class postmaster in the United States should read it, as it is our observation that the country people have never been reached. *Standard Paper Manufacturing Co., Richmond, Va.*

Every Employee should read it.

The writer would like to inquire if you will not reprint this in pamphlet form; we would like to distribute three hundred to our employees. *B. F. Roden, Pres., Roden Coal Co., Marvel, Ala.*

We think Mr. Roden's idea of arousing the patriotism of the miners an excellent one. Send 100 to this office. *Black Diamond Coal Mining Co., Birmingham, Ala.*

Every American Citizen should read it.

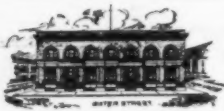
I am sure this address should be placed in the hands of every American Citizen. Nothing that I have read gives a clearer insight into the German methods, character, system of teaching, etc. *F. G. Salter, Montgomery, Ala.*

Send us 200 pamphlets. Want to distribute these around the City of Bogalusa. *W. H. Sullivan, Vice-President, Great Southern Lumber Co., Bogalusa, La.*

Every means available should be used to inform the people of the true conditions that this country faces. *D. C. Turnbull, Estimate Engineer, Dodge Manufacturing Company, Mishawaka, Ind.*

Send us 100 copies. We want to distribute these amongst our friends, and thus in a small way assist in the great work you are doing to arouse the country to the importance of the hour. *W. B. Whitlock & Company, Denton, Texas.*

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FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

FINANCIAL CORPORATIONS

Ala., Birmingham.—Consolidated Investment Co., capital \$5000, has filed articles of

incorporation. A. W. Bell, Pres.; S. H. Wallace, Treas.; D. L. Edmondson, V.P., and E. N. Hamill, Secy.

Ala., Center.—Farmers & Merchants Bank, capital \$20,000, has filed articles of incorporation. Address Jno. K. Richardson.

Ala., Mobile.—Farmers & Mechanics State Bank, capital \$100,000, is inceptd. by M. J. McDermott, Andrew Van Antwerp, Joseph C. Rich, John H. Jones and M. Lindsey.

Ark., Little Rock.—Army Bank at Camp Pike is chartered with \$25,000 capital and \$5000 surplus. Ed. Cornish, Pres.; W. L. Hemingway, V.P.; C. P. Perrie, Secy.; Cashier not yet elected.

Fla., Clearwater.—Pinellas Investment Co., capital \$25,000, is inceptd. by M. N. Dunn, Tampa; V. W. Dunn and C. H. Evans, Clearwater.

Ga., Macon.—Citizens & Southern Bank has begun business. Mills B. Lane, Pres.; G. L. Groover and George Clark, V.P.s; E. C. Scott, Cashier.

Ga., Sycamore.—The Exchange Bank, capital \$25,000, has begun business.

La., New Orleans.—Bankers Trust Co., capital \$200,000, has filed articles of incorporation. F. Prevost Breckinridge, Pres.; James L. Wright and R. B. Bishop, V.P.s; J. S. Voorhies, Cashier.

Md., Baltimore.—The German-American Bank of Baltimore, 524 S. Broadway, has changed its name to the American Bank. William Schwarz is Pres., and Clarence R. Evans, Cashier.

Md., Cumberland.—German Savings Bank has decided to change its name to the Citizens' Savings Bank. The former bank has been under the management of the latter and adjoins in the same building. Geo. L. Wellington is Pres.

Mo., Kansas City.—South Side Bank is being organized with \$100,000 capital. The new institution will be located at 39th and Main Sts.

Mo., St. Louis.—Indemnity Company of America, capital \$200,000, inceptd. by Sam Lazarus, H. D. Condie, Martin J. Collins, Henry W. Kiel, O. E. Buder, J. L. Carleton, H. S. Rumsey and others of Jefferson City; J. W. Francis, Columbus, O.

N. C., Statesville.—Plans are reported being made to establish a Morris Plan Bank. Fred. A. Hull of Asheville, N. C., may be able to give information.

Okla., Healdton.—Healdton Investment Co., capital \$10,000, inceptd. by J. W. Peterson, F. L. Stevens and C. A. Smith.

Okla., Miami.—Photo Abstract Co., capital \$250,000, inceptd. by Talbert Taylor, Karl N. Sweem and Roy England, Miami.

Okla., Tulsa.—Home Builders Investment Co., capital \$500, inceptd. by Fred. O. Boren and E. W. Hearn, Tulsa; John Simpson, Los Angeles, Cal.

Okla., Tulsa.—Planters' National Bank has been merged with the Exchange National Bank.—W. A. Brownlee will be Cash.

S. C., Charleston.—National Life Insurance Co. of South Carolina inceptd., capital \$50,000; surplus \$100,000. J. K. Nettles, Pres.; G. W. Seignious, V.P.; Jos. E. Jenkins, Secy. and Treas., and George T. Trencott, Asst. Secy. and Treas.

S. C., Great Falls.—Bank of Great Falls is chartered; capital \$25,000. R. S. Mebane, Pres. and V.P.; R. C. Mullican, Cashier. Business began Nov. 15.

S. C., Monetta.—Bank of Monetta has been granted a commission; capital \$20,000. Petitioners: D. L. Cato, A. H. Stevens, Jno. B. Jordan, Monetta, and W. B. Asbill, Batesburg.

Tenn., Chattanooga.—Citizens Savings & Loan Association, capital \$60,000, inceptd. by J. W. Bishop, T. H. Payne, Raleigh Crumbliss, D. H. Griswold, A. F. Davidson.

Tenn., Memphis.—General Investment Co., capital \$10,000, is chartered. Incorporators: Herman Bernsdorf, Chas. J. Haas, J. F. Bernsdorf, Chas. V. Runyan.

Tenn., Memphis.—Guaranty Trust Co. is being organized with \$500,000 capital. Business is to begin about Jan. 15. Frank Hayden, Pres.; L. C. Hume, V.P. and Cashier.

Tex., Turkey.—First National Bank has made application for charter; capital \$25,000.

Tex., Waco.—Bank of Waco has filed articles of incorporation; capital \$10,000. Directors: Thomas N. Lofton, Warren E. Lofton, H. E. Taggart, R. S. Nichols, H. W. Osborn, John Beckman and Frank Morrow.



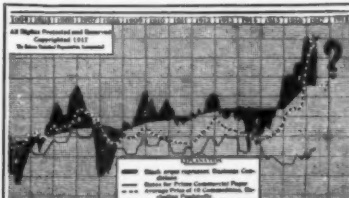
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W. Va., Junior.—Merchants and Miners Bank, capital \$25,000, inctd. by Robert E. Davis, W. A. Cox, D. M. Sandridge, A. W. Windom, L. N. Viquesney and George W. Shomo. Business is to begin about Jan. 1.

W. Va., White Sulphur Springs.—First National Bank, capital \$25,000, has made application for charter. A. E. Huddleston and others interested.

NEW SECURITIES

Ala., Gadsden.—(School).—Election is to be held to vote on \$10,000 of Altoona District, Etowah County, bonds. Address School Board.

Ala., Talladega.—(Water).—\$35,000 of 5 per cent. 30-year bonds have been purchased at par by local banks. Address The Mayor.

Ark., Little Rock.—(Road).—Comms. Arkansas-Louisiana Highway will meet in December, it is reported, to sell a bond issue of more than \$2,500,000.

Ark., Nashville.—(Street).—\$10,000 of 7 per cent. 30-year street improvement warrants have been purchased by J. L. Arlitt, Austin, Tex.

Fla., Jacksonville.—(Road, Bridge).—Date has not yet been set for holding election to vote on \$1,000,000 of 5 per cent. 30-year Ward County bonds. J. Turner Butler is Atty., and L. L. Meggs, Chmn. Board of Comms.

Fla., Palmetto.—(Bridge).—\$15,000 of 5 per cent. 20-30-year bonds have been purchased at par by E. W. Parker, Tampa.

Ga., Metter.—(School).—\$6000 of 6 per cent. \$500 denomination 5-30-year Pulaski School Dist., Candler County, bonds are voted; dated Jan. 1, 1918. Address Trustees Pulaski School Dist.

Ky., Ashland.—(Sewer, Market, City Hall, etc.).—\$250,000 of bonds defeated. W. A. Manning is City Clerk.

Ky., Irvine.—(Street).—Bids will be received until 6 P. M. Dec. 15 for \$4000 of 6 per cent. bonds. T. O. Christopher is City Clerk. Further particulars will be found in the Proposals Department.

La., Houma.—(School).—Bids will be received until 11 A. M. Jan. 15 for \$75,000 of 5 per cent. \$1000 denomination bonds School Dist. No. 3; dated Feb. 1, 1918; maturity 1918 to 1932, inclusive. A. R. Viguerie is Pres. Terrebonne Parish School Board.

La., Monroe.—(Courthouse, Jail, Road).—Election is to be held in Ouachita Parish to vote on \$125,000 of courthouse and jail, and \$400,000 of road bonds. W. A. Kelly is Clerk Police Jury.

La., Thibodaux.—\$10,000 of bonds sub-drainage Dist. No. 1 of Drainage Dist. No. 11, Lafourche Parish, are voted. Address Police Jury.

Miss., Senatobia.—(School).—Notice is given that the Board of Supervisors of Tate County, J. A. Wooten, Clerk, propose to issue \$20,000 of bonds for additional improvement and equipment for Tate County Agricultural High School.

Mo., Danville.—(Road).—\$45,000 Montgomery Road Dist., Montgomery County, bonds are voted. Address County Comms.

Mo., Benton.—(Road).—\$250,000 of the \$750,000 of 5 per cent. 20-year \$1000 denomination Scott County bonds recently voted have been purchased by Kauffman-Smith & Emert Investment Co., St. Louis.

Mo., Fulton.—(Road).—Fulton District, Callaway County, has voted \$25,000 of bonds. Address County Comms.

Mo., Fulton.—(Road).—\$25,000 of \$100 denomination Special Road Dist., Callaway County, bonds are voted. Details not yet arranged. Address A. T. Crumps, Williamsburg, Mo.

Mo., Greenfield.—(Road).—A letter to the Manufacturers Record says that \$25,000 of Rock Prairie Township, Dade County, bonds were defeated Nov. 24.

Mo., Springfield.—(Sewer).—Election will probably be held to vote on bonds. Address The Mayor.

N. C., Asheville.—(Street).—Bids will be received until Dec. 19 for \$127,000 of not exceeding 6 per cent. 20-year bonds. D. Hiden Ramsey is Commr.

N. C., Biltmore.—(Street).—\$6000 of bonds of South Biltmore have been purchased at par by Gay Green, Asheville, N. C.

N. C., Greenville.—(Municipal Bldg.).—Bids will be received until 7.30 P. M. Dec. 10 for \$182,000 of 6 per cent. \$1000 denomination bonds, dated Dec. 1, 1917, and maturing serially Dec. 1, as follows: \$104,000 General Funding bonds, 1919 to 1939, inclusive, and \$78,000 Assessment Funding bonds, maturing 1918 to 1928, inclusive. Albion Dunn is Mayor. Further particulars will be found in Proposals Department.

N. C., Monroe.—(Funding, Street).—Bids will be received until noon Dec. 14 by John C. Sikes, Mayor, for \$75,000 general funding, and \$114 of street bonds.

N. C., Swan Quarter.—(School).—Bids will be received Jan. 7 for \$5000 of 15-year bonds, Fairfield Township High School Dist., Hyde County; interest 5, 5½ or 6 per cent. E. L. Gibbs is Chmn. County Board of Education. Further particulars will be found in the advertising columns.

N. C., Tarboro.—(Road).—Bids will be received until 11 A. M. Dec. 12 by G. R. Gammon, Secy. Board of Trustees, No. 6 Township, Edgecomb County, for \$10,000 of 6 per cent. \$1000 denomination bonds.

Okl., Bristow.—(School).—Election will probably be called to vote on \$30,000 of bonds. C. E. Hutton is Supt. of Schools.

Okl., Cyril.—(Water).—Election is to be held in near future, it is reported, to vote on \$20,000 of bonds. Address A. W. Funnell.

Okl., Madill.—(Water).—\$65,000 of 6 per cent. 25-year bonds have been awarded to W. A. Brooks, Oklahoma City, at par and accrued interest. A. A. Kelly is Mayor.

Okl., Seminole.—(Light).—Election is to be held Dec. 14 to vote on \$5000 of electric-light plant bonds. Address The Mayor.

S. C., Spartanburg.—(School).—Election will probably be called to vote on bonds for Landrum School Dist., Spartanburg County. B. F. Thompson is Clerk Board of Education.

Tenn., Bolivar.—(Drainage).—Bonds for Drainage Dist. No. 4, Hardeman County, are to be placed on the market. M. R. Hizer is Chmn., and A. A. Anderson, Secy.-Treas. Board of Directors of said district.

Tenn., Columbia.—(Turnpike, Funding).—\$114,000 of Maury County turnpike and funding bonds have been purchased by the Mercantile-Union Trust Co., Jackson.

Tex., Athens.—(Road).—Election is to be held in Henderson County Jan. 5 to vote on \$50,000 bonds Road Dist. No. 7, also \$40,000 road Dist. No. 10. Address County Comms.

Tex., Austin.—Bonds approved by Atty.-Gen.; \$75,000 Calhoun County, road; \$3000 Lamar County common school dist. No. 15; \$1800 Kilgore independent school dist.; \$600 Hopkins County common school district 25; \$20,000 of 4 per cent. 10-30-year Paris street; \$12,000 of 5 per cent. 5-40-year Real County courthouse and jail; \$500,000 school and \$300,000 sewer 4 per cent., Dallas.

Tex., Baird.—(Road).—Election is to be held in Callahan County Dec. 21 to vote on \$100,000 of 40-year bonds. W. R. Ely is County Judge.

Tex., Beaumont.—(Park Site).—Ordinance has been passed by the City Council providing for the issuing of \$100,000 of 5 per cent. 1-40-year park-site-purchase bonds. A. P. Wooldridge is Mayor.

Tex., Bryan.—(School).—\$90,000 of 5 per cent. 40-year serial \$500 and \$1000 denomination bonds, dated Dec. 1, 1917, were purchased at private sale Nov. 23 at par and accrued interest by Harris Trust and Savings Bank, Chicago, Ill.

Tex., Canyon.—(Road).—\$50,000 of Randall County bonds are voted. Address County Comms.

Tex., Cleburne.—(School).—\$6000 of 5 per cent. Lone Star School Dist., Johnson County, bonds recently voted will probably be placed on the market about March 1. G. D. Thomas is County Supt. of Schools.

Tex., Jasper.—(Road).—Bids will be received until 4.30 P. M. Dec. 9 for \$500,000 of 5 per cent. \$1000 denomination bonds, dated Nov. 15, 1917, and maturing serially beginning April 1, 1919. Bids will be opened at 10.30 A. M. Dec. 10. C. C. Brown is County Judge. Further particulars will be found in Proposals Department.

Tex., Lockhart.—(Road).—Election is to be held in Caldwell County Dec. 22 to vote on \$200,000 of bonds Road Precinct No. 1. Address County Comms.

Tex., Palestine.—(Road).—\$40,000 Cayuga District and \$50,000 Frankston District, An-

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derson County, 5 per cent. \$1000 denomination bonds are voted. Address Miles Q. Reeves.

Tex., Vernon—(Road).—\$115,000 of bonds Defined Road Dist. No. 1, Wilbarger County, are voted. Address County Commrs.

Va., Hopewell—(Street, Sewer, Light, etc.). City Council has authorized the issuing of

\$75,000 of bonds for streets, sewers, lights, water and equipment for fire department. I. M. Warren is City Clerk.

W. Va., Wellsburg—(Sewer).—\$42,000 of an authorized issue of \$85,000 of 5 per cent. 10-year \$500 denomination bonds have been purchased at \$42,042 and accrued interest by Wellsburg Banking & Trust Co., Wellsburg.

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Terminal of Trains from South and West.

DAVID REED, Manager

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

New Representative Appointed.

Announcement is made that W. F. Trenary, Jr., with headquarters at 419 Brown-Marx Bldg., Birmingham, Ala., now represents the Harrison Safety Boiler Works of Philadelphia, manufacturers of the Cochran heaters and other steam plant appliances, succeeding W. R. Jennison, whose connection with that company has terminated.

Change of Business Connection.

L. F. Hamilton, hitherto manager of the advertising and specialty department of the National Tube Co., Pittsburgh, Pa., became identified with the Walworth Manufacturing Company at Boston, Mass., on December 1. This latter company purchased Kewanee Works of the National Tube Co. on August 1, and, as he has been identified with the exploitation of Kewanee products during all his business life, this new connection simply means that he goes back home. He will take up approximately the same duties as before, but more particularly the training of specialty students, and the supervision of specialty

and sales promotion work, etc. W. L. Schaefer, who was Mr. Hamilton's assistant, will assume the position formerly held by him with the National Tube Co. at Pittsburgh. Mr. Hamilton is a native of Kewanee, Ill.

Sullivan Machinery Co. Changes.

The Sullivan Machinery Co., 122 South Michigan Ave., Chicago, announces that Joseph H. Brown, hitherto assistant manager of its New York City office, has been appointed district sales manager at Chicago, to succeed William P. J. Dinsmoor, who has resigned to engage in business at Denver, Col.; also that Wallace T. Roberts, hitherto sales engineer for this company in lower Michigan, Northern Ohio and Northern Indiana, has been appointed district manager at Denver, succeeding Capt. Matt. R. Blish, Ordnance Department, U. S. A., who has been acting manager at Denver since May last. George W. Blackinton, who was until then manager at that point, is captain commanding the third battalion, 353rd infantry regiment of the National Army at Camp Funston, Kan.

(Continued on Page 104.)



Somewhere in America

Laying submarine cable, hundreds of miles of it, to scores of isolated lighthouses is one of the telephone tasks made necessary by the war. The Bell System has also built lines connecting some two hundred coast guard stations.

It has built complete telephone systems for fifteen National Army cantonments and fifteen National Guard camps, each a city in size, and also at many naval, officer's reserve, mobilization and embarkation camps and at army and navy stations.

It has provided an enormous increase in long distance facilities throughout the country, that satisfactory service may be maintained between cantonments, training camps, guard outposts, military supply stations, war industries, the National Capital and other centers of Government activity.

The Government facilities at the National Capital have already been increased three-fold and there has been a tremendous increase in local and toll facilities.

Fifteen thousand miles of telephone wire have been taken from other use for the exclusive service of the Government and some 20,000 miles of telegraph facilities also provided.

Meanwhile the Bell System has given generously of its man power, until over seven thousand men are in service or recruited for military duty.

Members of the Bell System whether they have already gone to France or whether they have stayed at their posts to help mobilize the country for victory, are equally in the service of the Nation.



AMERICAN TELEPHONE AND TELEGRAPH COMPANY
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Entrance road to Naval Station at Great Lakes, Illinois.
All main roads within the Station are built with Tarvia.

Tarvia Roads Withstand War Traffic

THE troops in their Texan maneuvers ruined many miles of ordinary roads.

The traffic was too strenuous, and they went to pieces.

Some roads, however, stood the test.

These were Tarvia roads.

They stood the strain of marching thousands. Horse, motor and artillery divisions passed over them without number. They had the equivalent of years of traffic in a few days.

Tarvia roads are built to stand hard usage, and that makes them eminently fitted for military roads. They have been used on Government reservations in the past, and they are being specified on much new work.

The picture above shows a Tarvia road at the Naval Station at Great Lakes, Illinois. It was

built in 1909, and today is in most excellent condition.

Tarvia roads are inexpensive to construct and the maintenance is low.

Where used they have shown themselves through a period of years to be the *cheapest form of permanent construction*.

Send for illustrated booklet showing towns all over the country that are using Tarvia successfully.

Special Service Department

This company has a corps of trained engineers and chemists who have given years of study to modern road problems.

The advice of these men may be had for the asking by any one interested.

If you will write to the nearest office regarding road problems and conditions in your vicinity, the matter will have prompt attention.

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[The following copy is inserted at the request of the Chief Signal Officer, Aviation Section of the Signal Corps.—Editor Manufacturers Record.]

Over Here!

Say, you red-blooded fellow Over Here, take down the receiver and listen to a line of talk that ought to get under the hide and into the heart of men of your brand.

You are a skilled man. You have been fighting life's game in a country where every man has an even chance to make the most of himself. You are an American, and all that you are, and all that you hope to be, reflects to the credit of a democracy.

That democracy is being assailed by the most damnable foe that ever fired a cannon, that ever drove home a bayonet, that ever ravaged a neutral State, that ever sunk a hospital ship, that ever shelled women and children in lifeboats, that ever crucified and castrated captured enemy soldiers, that ever cut the right hands off boy children in captured territory, that ever raped women by the thousands, that ever lived to fasten its demon clutches on the throat of civilization.

Almighty God will not permit the unleashed hellishness of Kaiserism to engulf the world. No sane thinking man can conceive of an all-wise and all-loving supreme Deity permitting our section of the world to become under German leadership—the stench of the universe, but now, not tomorrow—right now—Almighty God needs the help of trained men.

It has been said repeatedly by men who ought to know what they are talking about that this war will be won in the air. Uncle Sam is building an air fleet that will astound the fighting world. Factories from Maine to California are working day and night on aeroplane parts. Guns and oil and gasoline and cameras and other material parts of these war machines are coming along as fast as skilled organized American factories can bring them out. Already they are being assembled, and that acme of the American get-together spirit, the Liberty Motor, is being installed.

Ever since this great war started the Government has been establishing aviation schools to perfect the bird men who will be the eyes of the national army. These schools have already turned out a mighty healthy number of those fearless chaps who can climb to dizzy heights, loop the loop, spiral with the engine cut off, repair a jammed machine gun and get it into action before they reach the ground, and there are thousands more well on the road to their commissions, and they are getting into the seats of the new machines almost before the paint is dry on the initials U. S. A.

The machines and many of the fliers are taken care of, but there is a crying need of trained men to care for these machines, and those men will be forthcoming when the need is known.

There is a blank at the bottom of this page that when properly filled out will make a glorious chapter in the history of this country. It will be the answer of skilled gentlemen to the challenge of skilled brutes.

But let's get down to cases. Do you drive an automobile? Thank God, if you do and sign the blank.

Do you know anything about a gasoline engine? Thank God, if you do and plaster your name on the blank.

Are you a machinist or a machinist's helper? Thank God that your time in the land of the free has been spent learning a useful trade, and put your signature to the blank, firm and right in your conviction that it is the greatest act of your life.

Do you know skilled men, and have you any influence with them? If you have, put that influence to work, put your shoulder to the wheel, remind yourself that war is now the business of America and that we are threatened with all those things Germany has taught the world to expect from her. Spot your skilled men, and if they are not working on war essentials shoot some of your brand of Americanism into them.

Men of draft age, if these remarks reach you, reach for your hat and start for the nearest recruiting station and enlist in the aviation section of the Signal Corps. You can't enlist after December 15.

If you are 18, 19 or 20 years old sign the blank and become a man.

If you are between 32 and 40 years of age and qualified, sign the blank and put your name where it belongs among those who know no obligation greater than their love of country.

There has never been a greater appeal to skilled men. There probably will never be a greater need of skilled men called upon to perform a duty so essential.

In God's name, you skilled men, recognize this emergency. Know a need when you see one. Discern between German-made news and American-made news. This is no six-months' war. It is a fight between principle and despotism, and it is a finish fight.

Uncle Sam needs skilled men. He puts his need up to you. In humanity's name, sign this blank with a hand that doesn't shake. It's an opening for a body blow to Autocracy.

MEN OF DRAFT AGE MUST ENLIST BEFORE DECEMBER 13.

The new selective draft regulations prevent any man from 21 to 31 years old enlisting after December 15. In order to complete your enlistment (be examined, accepted and take the oath), you should positively report to any recruiting officer before December 13.

HERE IS A LIST OF THE KIND OF MEN WANTED.

(Arranged in the order of number of men needed.)

Chauffeurs.
Auto Mechanics.
Automobile Engine Repair Men.
Office Clerks.
Carpenters.
Radio Operators.
Electricians.
Instrument Repair Men.
Cooks.
Coppersmiths.
Armors (Machine Gun Repair Men).
Sail Makers.

Photographers.
Machinists.
Blacksmiths.
Motorcycle Repair Men.
Stenographers.
Cabinet Makers.
Draftsmen (Mechanical).
Magnet Repair Men.
Metal Workers.
Automobile Engine Testers.
Rope Riggers (Cordage Workers).
Propeller Makers (Airplane).

Riggers (Airplane Assemblers).
Telephone Linesmen.
Tool Makers.
Vulcanizers.
Welders.
Lithographers.
Packers.
Telephone Operators.
Motorcyclists.
Plumbers.
Painters.
Tailors.
Gas Works Employees.

Buglers.
Moulders.
Pattern Makers.
Telephone Adjusters.
Barbers.
Truck Masters.
Bricklayers.
Cobblers.
Propeller Testers (Airplane).
Boat Builders.
Saddlers.
Stock Keepers (Experts).

JUST FILL IN, CUT OFF, AND MAIL ONE OF THESE SLIPS.

Volunteer Department, 119 D Street N. E., Washington, D. C.:

I desire to enlist, as a skilled workman, in the Aviation Section of the Signal Corps.

Name..... Age.....

Address.....

At present employed with.....

Trade..... No. years in trade.....

The Kaiser's Incendiaries are at large

Employ an able-bodied Citizen for Watchman and equip him to fight both Fire and Man.



Germany has let loose her horde over here. October was a month of terror. All records for incendiary fires were broken. Enough food was burned to feed our armies 90 days.

Baltimore underwent a \$5,000,000 fire. Brooklyn a \$2,000,000 elevator fire. Rochester a \$1,000,000 fire. Kansas City a \$1,500,000 stockyard fire in which 15,700 cattle and hogs were destroyed. There is danger, too, from other sources. Factories are speeded up. Production managers, thinking only of production, forget fire and fire protection. Owners of warehouses, grain elevators, shipyards, lumber plants, railroads, munition factories and other plants must look the facts in the face. A single day lost in getting fire protection may mean a business wiped out.



"I WANT TO PROTECT MY FACTORY, BUT HOW?"

That question is not hard to answer.

First, you need a watchman. 90% of all fires are discovered by workers or watchmen. Get a big, brawny man who can think and fight. Equip him as the watchman in the picture is equipped—with a Pyrene extinguisher to kill incipient fires, with a Pyrene Watchman's Clock to check his vigilance and with a revolver. Next, put Pyrene on posts throughout your buildings—one to every 1000 square feet.

Next, get a factory size chemical fire engine, good on a stubborn blaze.

Next, get hose to stop big, devastating blazes. Finally, teach all employees what a fire will mean by displaying the warning sign shown here. Don't procrastinate. Today make your business fire-safe.

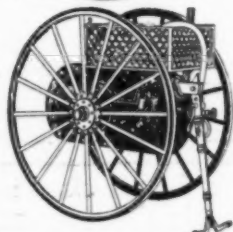
**FIRE IN THIS PLANT
MAY PUT EVERY MAN OUT OF WORK
HELP THE MANAGEMENT PROTECT
YOUR JOB NO SMOKING**

GUARDENE
Sulphuric Acid
Extinguisher
—Required in
some risks by
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other regula-
tions.

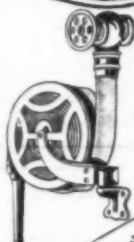


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CHEMICAL EN-
GINE (40 gallons).
A factory size fire
engine has saved
many a plant from
sure destruction.

Price complete,
\$225.



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TON RUBBER
LINED HOSE.
Made in any length
and labeled strictly
in accordance with
the requirements
and specifications of
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ual Fire Insurance
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National Fire Pro-
tective Association.



The Role Stationary Chemical Engine, for pro-
tection of all buildings. All Fire Department
supplies, uniforms, rubber coats,
rubber boots; First aid kits, In-
dustrial Goggles, Respirators,
Smoke Helmets, Warning
and Exit Signs, Exting-
uisher Recharges,
Fire Pails, Fire
Buckets.

Send me the following
(check what you want):

☐ Chief Guerin's new book—
"Protecting Your Factory From Fire."

☐ Complete Catalog of Pyrene Fire Appliances.

A free expert to inspect buildings and make sugges-
tions on equipment.

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INDIVIDUAL _____

ADDRESS _____

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Detailed classification of specialized work undertaken by those
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Electrical—Civil—Mechanical

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C. E. KREBS, Mem. A. I. M. E.
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Coal, Oil and Gas

Railroad and Municipal Engineering
CHARLESTON, W. VA.

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A. W. Dow, Ph.D. F. F. Smith, Ph.D.

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Mem. Am. Soc. Civ. Engrs.

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Engineering Materials
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Layout, Design and Construction of Industrial Plants and Public Service Properties. Examinations, Reports and Valuations. Highway Engineering. Operation of Public Service Properties.

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Reports, Designs, Supervision. Public Service Properties. Power Developments. Distribution and Application.

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M. Am. W. W. Assoc.

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Water Works Streets
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Including the Design, Financing, Construction and Management of Hydro-Electric Power Plants.

101 Park Avenue NEW YORK

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Designs, Estimates and Supervision: Concrete Bridges, Viaducts, Buildings, and other Structures.

Porter Building MEMPHIS, TENN.

WILLIAM SPEED

Civil Engineer and Landscape Architect

Chief Engineer Louisville-Nashville
Division Dixie Highway.

Starks Building LOUISVILLE, KY.

G. L. MEAKER

Contracting Engineer.

Hot Galvanizing Equipment for Shipping Yards, Steel Mills and Industrial Plants.

2 Knapp Building JOLIET, ILLINOIS

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Investigations and Valuations for Purchase or Financing Water and Sewer Systems, Water Power, Drainage and Irrigation Systems.

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Packing-House and Cold-Storage Engineers.

We help you raise the capital, build the plant and run it successfully. We make a specialty of Southern plants.

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Industrial Plants, Factories, Municipal Work of all kinds, Steam and Electric Railways, Public Utilities, Reports, Valuations, Supervision, Franchises Drawn, Properties Operated.

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Designing and Consulting Engineer

Reinforced Concrete Bridges exclusively.
Associate Engineers in each State.

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MARTIN J. LIDE

Consulting and Constructing Electrical and Mechanical Engineer

BIRMINGHAM, ALA.

TUCKER & LAXTON

Contracting Engineers

Filters, Concrete Work, Hydro-Electric and Steam Electric Construction

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WILLIAM C. SPIKER, C. E.

Mem. Am. Soc. Civ. Engrs.

Consulting Engineer

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Member Am. Society Agricultural Engineers

Preliminary Reports and Operating Plans for SOUTHERN AGRICULTURAL DEVELOPMENTS
Soils, Drainage, Livestock and Cropping
Twenty-seventh Year

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Engineers

Manufacturers

For Spray Cooling Ponds, Irrigation Systems, Aerating Reservoirs, Odor Condensers, Gas Washers.

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Designing—Financing—Construction—Operation.

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WILLARD, BOGGS & CO.

General Contractors

Water Power Development. Railroad Construction. Buildings.

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Engineers and Contractors

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Specialty Design and Construction of

REINFORCED CONCRETE WORK

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WADDELL & SON

Consulting Engineers

Reinforced Concrete and Steel Bridges. Elevated Railways. Difficult Foundations. Advisory Services and Appraisals.

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GRAVES ENGINEERING CO., Inc.

Engineers and Operators

Industrial Properties and Public Utilities

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NEW YORK

Concrete-Steel Engineering Co.

Designing and Supervising Engineers

Concrete-Steel Bridges

Concrete-Steel Tanks

Park Row Bldg. NEW YORK

WILEY & WILSON

Consulting Engineers

Manufacturing Plants. Steam and Electric Power Plants. Steam Heating and Ventilating Systems.

907-909 Peoples National Bank Bldg.

LYNCHBURG, VA.

ARTHUR G. MCKEE & CO.

Engineers and Contractors

Power Plants. Industrial Buildings. Metallurgical Plants. Blast Furnaces. Storage Bins. Coal-Handling Equipment.

Design—Construction

CLEVELAND, OHIO.

FREELAND-KLYCE ENG'G CO.

Consulting Engineers

Concrete and Steel Structures

NASHVILLE, TENN.

F. ERNEST BRACKETT

Civil and Mining Engineer

Coal Mines, Water Works, Sewerage, Industrial Plants, Surveys and Reports.

Clark-Kesting Bldg. CUMBERLAND, MD.

R. E. SHIPLEY

Assoc. M. Am. Soc. C. E.

Agricultural Development.

Tile Drainage. Surveys. Reports.

TEXARKANA, ARK.-TEX.

WALTER A. ALLISON

Consulting Engineer

Specialist in the design, construction and supervision of Gas Properties. Reports, Appraisals, Rate Development.

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PITTSBURGH, PA.

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Steel Works, Rolling Mills, Blast Furnaces, Hot Blast Stoves, Furnaces for All Purposes. Operated with Producer Gas, Natural Gas, Oil or Pulverized Coal. Coke Ovens. Gas Producers, Hand Operated or Mechanical.

The Valve of the Era. SCHILD SLIDING GAS AND AIR REVERSING VALVES.

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Your card on these pages will place you directly before the active forces of the South and Southwest.

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ENGINEERS

CONTRACTORS

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115 Broadway, New York
New Orleans San Francisco

SCOFIELD ENGINEERING COMPANY

Consulting, Designing and Supervising Engineers
TEXTILE—MECHANICAL—ELECTRICAL—CIVIL
Commercial Trust Building PHILADELPHIA

THE WEST CONSTRUCTION CO.

Street Paving Contractors
CHATTANOOGA, TENN.

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BLAST FURNACES
IRON ORE MINES
FERRO-ALLOYS
COAL MINES—COKE

RECONSTRUCTION
REORGANIZATION
RE-FINANCING
OPERATING

OFFICES AND LABORATORY—ROANOKE, VIRGINIA

JOHN B. GUERNSEY AND COMPANY

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Chemists

Engineers

Geologists

The constantly expanding activities in industrial operations throughout the Southern and Southwestern States are creating a steady demand for the services of architects, engineers, chemists, geologists and other specialists to render advice in plant design and operation.

Your card in the professional directory of the Manufacturers Record—for 35 years the leading exponent of Southern development—will keep your special line of work before the men who are in active charge of the South's industrial affairs.

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Mill Architect and Engineer

SPECIALTY:

Textile Mills and Water Power Developments

GREENVILLE, S. C.



STONE & WEBSTER

Industrial Plants and Buildings, Steam Power Stations, Water Power Developments,
Transmission Lines, Gas Plants, Electric and Steam Railroad Work, Substations.

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CHICAGO

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Engineers—Contractors

Reclamation of Southern Swamp Land

Home Office—WILSON, N. C.

327-333 Monticello Arcade, NORFOLK, VA.

THE J. G. WHITE COMPANIES

Engineers—Contractors—Financiers—Managers

43 EXCHANGE PLACE, NEW YORK

London

Chicago

H. M. BYLLESBY & COMPANY

Engineers and Managers

Purchase, Finance, Design, Construct and Operate Electric Light, Gas,
Street Railway and Water Power Properties. Utility Securities Bought
and Sold. Examinations and Reports.

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Trinity Bldg.

CHICAGO
Continental & Commercial Bank Bldg.

TACOMA
WASHINGTON

HENRY J. COX AND COMPANY

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General Contractors

Concrete Construction, Waterworks, Buildings.

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SANDERSON & PORTER

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CHICAGO
72 West Adams St.

NEW YORK
52 William Street

SAN FRANCISCO
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THE J. B. McCRARY COMPANY

Engineers ATLANTA, GEORGIA

MUNICIPAL IMPROVEMENTS

Southern work only. Have built over half of the Water, Light and Sewer
Systems in Georgia and Alabama. We Design—Finance—Superintend.
Bonds Purchased.

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Detailed classification of specialized work undertaken by those
having cards in this Directory will be found in Classified Index.

SAMUEL P. SADTLER & SON

Consulting and Research Chemists.
Analyses and Reports made in all Branches
of Industrial Chemistry. Raw Materials
and Waste Products studied and reported
upon. Experimental work.
Office and Laboratory, 210 S. 13th Street; Experi-
mental Laboratory, Chestnut Hill,
PHILADELPHIA, PA.

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EMORY & EISENBREY

Civil, Chemical and Industrial Engineers
Designs of Industrial Plants. Modernizing, Investi-
gations and Reports on Manufacturing and Mining
Propositions. Specialists on Feldspar, Talc, Silica,
Kaolin, Bauxite, and similar minerals.
PHILADELPHIA, PENNSYLVANIA

FROEHLING & ROBERTSON

Richmond Testing Laboratory
Chemists and Economic Geologists
Analyses of all kinds. Waters and fertilizers
specialties. Standard Cement Testing Exami-
nations and reports on mineral properties.
813 East Franklin St. RICHMOND, VA.

THE PICARD LABORATORIES

Analytical and Consulting Chemist
Industrial Problems. Municipal Sanitary Work and
Testing of Municipal Supplies. Analysis of Foods,
Cottonseed Products, Fertilizers, Minerals, Fuel and
Water—Chemical and Bacteriological.
1911 First Avenue BIRMINGHAM, ALA.

WILEY & COMPANY

Analytical and Consulting Chemists
Experts on Fertilizer Materials, Coal, Greases,
Foods, Drugs, Dairy Products, Chemical and
Bacteriological Examinations of Water for
Domestic and Manufacturing Purposes.
7 S. Gay Street BALTIMORE, MD.

LUDWIG A. THIELE, Ph.D.

Chemical Engineer
Mem. Am. I. Ch. E.
Design and Construction of Chemical Plants. Sul-
phuric Acid Plants (Multiple-tangent System), Fer-
tilizer Plants, Extraction Plants (volatile solvents),
Supervision, Investigation of Plants, Processes and
Propositions.
Hartman Bldg. COLUMBUS, OHIO

N. A. GILBERT

Consulting Chemical Engineer
Located in the center of the Graphite milling district
of Alabama. Samples drawn and analysis, without
delay.
ASHLAND, ALA.

RICHARD K. MEADE & CO.

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Chemical and Industrial Engineers
Chemical, Cement, Lime and Fertilizer Plants De-
signed and Improved. Reports on Industrial
Propositions. Technical Research. Analyses,
Tests and Inspection of Engineering Materials.
Law Building BALTIMORE, MD.

BURGESS & LONG

Chemical Engineers & Analytical Chemists.
General Chemical Analyses.
Recovery and Disposal of Manufactural Wastes
and By-Products.
Technical Control of Manufacturing Industries.
Consultations as to Processes, Products, etc.
8 E. Long Street COLUMBUS, OHIO

PITTSBURGH TESTING LABORATORY

General Inspection
Specialties—Cement and Road Materials, Cast
Iron Pipe, Chemical and Physical Tests.
CINCINNATI BIRMINGHAM DALLAS
CHICAGO PITTSBURGH NEW YORK

Robert W. Hunt
Jas. C. Hallsted

ROBERT W. HUNT & CO.

Engineers
INSPECTION AND TESTS. Steel and Cement
for Bridges and Buildings. Railroad Material
and Equipment. Chemical, Physical and
Cement Laboratories.
Chicago New York Pittsburgh St. Louis
Dallas New Orleans Los Angeles San Francisco

MINES EFFICIENCY CO.

*Geological, Mining and Metallurgical
Engineering.*
Examination and Exploration of Mineral Properties.
Design and Erection of Concentration Plants. Man-
agement and Iron Ore Problems a Specialty.
709 Alworth Bldg. DULUTH, MINN.
1801-165 Broadway NEW YORK CITY

THE DORR COMPANY

Metallurgical and Industrial Engineers
Research, consultation and design of plants in
connection with Chemical and Hydromet-
allurgical processes, prevention of stream
pollution, trade waste treatment, etc.
17 Battery Place
DENVER NEW YORK LONDON

GEORGE C. DAVIS

Analytical and Consulting Chemist
Analyses of Iron, Steel, Ores, Alloys, Coal, Sand,
Clay and Cement.
39 South Tenth St. PHILADELPHIA, PA.

FOUNDED 1910

THE INSTITUTE OF INDUSTRIAL RESEARCH

(INCORPORATED)
Chemical and Engineering Laboratories
Consulting Chemists and Chemical Engineers
Plant Design and Construction WASHINGTON, D. C.

THE FORT WORTH LABORATORIES

Cottonseed and Food Products, Milling and Baking Tests, Engineering Inspections
and Tests, Analysis of Waters, Fuels, Petroleum Products, Etc., Bacteriological,
Pharmaceutical, Toxicological Work, Soap, Glycerine, Packing House Products,
Fertilizer and Clay Products.
F. B. PORTER, B. S., Ch. E., Pres. R. H. FASH, B. S., V.-Pres.
204 1/2 Houston Street, FORT WORTH, TEXAS

ARTHUR D. LITTLE, Inc.

Our organization of chemical engineers has been active and suc-
cessful in the development of many industries. We provide chem-
ical control of manufacturing establishments in the interest of econ-
omy in purchases and in operation. Have had good results in the
utilization of many kinds of waste products. Familiar with South-
ern conditions. Correspondence invited and visitors cordially wel-
comed to inspect our facilities for research, control and testing.

93 Broad Street

BOSTON



We test foundations for buildings, bridges and dams.
We prospect coal and mineral lands in any part of
North and South America.

WE LOOK INTO THE EARTH By use of Diamond Core Drills

PENNSYLVANIA DRILLING COMPANY
2633 Whithall Bldg., New York. 30 Carson St., Pittsburgh, Pa.
Phone Rector 5993 Phone Hemlock 306

INDUSTRIAL NEWS OF INTEREST

(Continued from Page 98.)

Manager Appointed.

W. V. Hawkins has been appointed man-
ager of the New York branch of the Colum-
bian Rope Co. to succeed G. B. Granger, ac-
cording to a formal announcement just
issued by that corporation.

Agency Announced.

The Asbestos Protected Metal Co. of
Pittsburgh, Pa., announces that it is now
represented in the State of Georgia by the
J. F. Schofield's Sons Company, located at
Macon, this agency having been established
December 1.

Change of Representative.

T. R. Willard has been appointed repre-
sentative in Alabama for the Main Belting
Co. of Philadelphia, succeeding M. H. Van
Cise, who until recently occupied that posi-
tion. Mr. Willard's address is at the Hill-
man Hotel, Birmingham, Ala.

To Make Auto Tubes and Casings.

The Doss Rubber & Tube Co., Inc., of
Atlanta, Ga., recently began work on the
foundation for its factory, which will be
situated near Fort McPherson on the Cen-
tral of Georgia Railway and within the
Atlanta city limits. The organization of
the company has been completed and with-
in a few months it will begin to manufac-
ture compression pneumatic inner tubes
for motor vehicles, and also high-grade
casings. The factory is supported almost
wholly by Southern capital. It is stated
that the compression idea embodied in the
making of these tubes enables them to
automatically close punctures made by
nails or other sharp articles. It is esti-
mated that when the factory is ready to
operate the complete plant will represent
an investment of \$300,000.

Ice and Refrigerating Installations.

Since its last report, a month ago, the York
Manufacturing Company of York, Pa., has
made 53 installations of its ice-making and
refrigerating machinery in various parts of
the country, including many in the South
and Southwest, as follows: A. M. & J. Solaris
Co., grocers, New Orleans, La.; East Coast
Restaurant, West Palm Beach, Fla.; Fred
Reiger, meats, Covington, Ky.; Martin Glo-
ver Co., cold storage, San Angelo, Tex.;
Desel Boettcher Co., Houston, Tex.; Chero-
Cola Bottling Co., Hattiesburg, Miss.; Coca-
Cola Bottling Co., Norfolk, Va.; Ottawa
County Ice Co., Miami, Okla.; Consumers'
Ice & Coal Co., Port Arthur, Tex.; Plymouth
Light & Ice Co., Plymouth, N. C.; Cap. F.
Bourland, Fort Smith, Ark.; Swift & Co.,
Wheeling, W. Va.; Armour & Co., Fort
Worth, Tex., and Timpson Ice Co., Timpson,
Tex.

Is Entering a New Field.

The Birmingham Machinery & Foundry
Co., Birmingham, Ala., is branching out con-
siderably in new directions, and it is now
prepared, according to announcement, to co-
operate thoroughly in an engineering ca-
pacity in industrial lines, covering anything
which includes the concentration of liquids.
In entering this new field, other than the
sugar business, the company feels that it
will have to be a little conservative before
it attempts to finance the construction of
complete chemical industrial works, conse-
quently it will only undertake to solve the
problems incidental to its specialty. To
explain: Most industrial plants—including
the sugar factories—may be separated into
two major divisions—first, the treatment of
raw materials for the recovery of a liquid;
second, the clarification of the liquid and its
concentration to a higher specific gravity
consistent with the demands imposed by
market conditions, or for the recovery of
crystals from the liquid. It is this second
division with which the company is at pre-
sent most interested, and in which it can be
of most service to its prospective customers.
The company also contemplates placing on
the market a full line of chemical machinery,
but this will not be done for some time.
Now the only machines it is prepared to
offer to the chemical and industrial field are
evaporators, heaters and vacuum pans. The
chief engineer is E. H. Rousseau, formerly
connected with E. B. Badger & Sons Com-
pany, chemical engineers, of Boston, Mass.,
and it will be the purpose of the Birmingham
Machine & Foundry Co. to consider all prob-
lems which include the evaporation of liquids
of a chemical nature. George M. Morrow,
Jr., is president; R. I. Ingalls, vice-presi-
dent, and Robert Ritchie, secretary and
treasurer.

TRADE-LITERATURE

Forecasting the Yield and Price of Cotton.

The Macmillan Company of New York has
published a book by Henry Ludwell Moore,
professor of political economy in Columbia
University, which goes into higher mathe-
matics in the method of forecasting the yield
and the price of cotton. The author states
his aim has been to make a contribution to
economic science by showing that the
changes in the great basic industry of the
South, which dominate the whole economic
life of the Cotton Belt, are so much a mat-
ter of routine that, with a high degree of
accuracy, they admit of being predicted from
natural causes. The price of book is \$2.50.

Oil Circuit Breakers.

"The Type F.K.-25 Oil Circuit Breaker,"
says Bulletin 47471 of the General Electric
Co., "has been developed for use on low-
voltage, high-ampere capacity, alternating
current circuits. Sometimes the initial cir-
cuit breakers can be used. Oil circuit break-
ers, however, are recommended, and should
always be installed when inflammable par-
ticles or gases are in the air, or when there
is insufficient headroom for the air circuit
breaker." Illustrations and complete de-
scriptions of these circuit breakers are also
given in this bulletin, together with diag-
rams and details of dimensions. The mar-
gins are perforated for handy binding.

Handsome Architectural Display.

Milburn, Helster & Co., architects, Union
Savings Bank Bldg., Washington, D. C.,
have issued a handsome book presenting
many pictures selected from their latest
work. They include illustrations of numer-
ous public buildings designed for either the
Federal Government, State Governments,
cities, counties, railroad companies, banks,
schools, clubs, churches, residences, etc.
These are in either Washington or in the
Southern States. But there is one picture of
the Bureau of Engraving and Printing of
the Chinese Government at Peking, China,
which was designed and planned by this
firm. The publication is richly gotten up,
and the illustrations are done in the highest
style of the engraver's and printer's art.
They are on heavy, calendered paper, and
every detail is fully shown. The first large
picture in the book represents the new build-
ing of the Navy Department at Washington.
Another very striking design is that for the
Washington Athletic Club.

Elimination of Hammering in Steam Pipes.

Automatic pumps and receivers—steam and
electric, single, duplex, triplex—made at the
Deane Works, Holyoke, Mass., are considered
and pictured in Bulletin D-1301 of the Wor-
thington Pump & Machinery Corporation,
115 Broadway, New York. These devices are
made to overcome the annoyance and incon-
venience resulting from condensation of
steam in heating systems and in machinery.
It is remarked that the water resulting from
condensation, may, through hammering or
pounding in the pipes, cause damage. Energy
is also wasted, but the prompt withdrawal of
this water from the system and its return to
the boiler supplying steam will introduce
economy into the operation of the plant
equipment. These pumps and receivers ac-
complish the desirable results described. A
number of types are shown to meet differ-
ent requirements.

Westinghouse Catalogue of Industrial Motors.

The second of a series of catalogues of
industrial motors has just been distributed
by the Westinghouse Electric & Manufac-
turing Co., East Pittsburgh, Pa. This is
Catalogue 30 and covers the company's
complete line of direct current motors and
generators for industrial service. After
several pages giving general information
regarding the ordering, classification and
selection of direct current motors, there
follows complete description, rating and
dimensions for type SK commutating-pole
motors, various modifications of type SK
elevator motors, reversing planer motor
equipment, type CD motors, headstock
equipment for woodworking plants, type
SK and CD motor generators and are weld-
ing equipment. Much new information is
given, especially on such subjects as arc
welding, headstock equipment, motion-pic-
ture service and battery charging service.
This new catalogue is identical in size and
will fit the binder for the company's line
of catalogues covering supply apparatus
and small motors.

NOT ENCOURAGED TO INCREASE SUGAR PRODUCTION.

Louisiana Farmers May Turn to Cotton to Escape Perpetual National Attacks on Sugar Industry.

New Orleans, La., November 30—[Special.]—The Louisiana sugar men are asking each other the question, Will the 1918 acreage in sugar-cane in this State be greater or as great as the 1917 acreage was? and they are receiving no other answer than reports from almost every sugar parish that many cane growers are contemplating abandoning the cultivation of cane and taking up the production of cotton. The state of mind which the Government has created among Louisiana sugar farmers, most of whom are cultivators of small farms, despite contrary general belief, is one of governmental hostility to the production of sugar in this State, and the little cane growers, who depend for their own and their family's livelihood upon the produce of their lands, are tired of being part of such a perpetual industrial target for national attack as they have concluded, from their many years of experience, the Louisiana sugar industry has been and is.

The trend away from cane and towards cotton, which many of them once raised before the coming of the boll-weevil, is most noticeable in the outlying sugar parishes or those considered on the rim of the Louisiana sugar bowl, which were never so completely sugar parishes as Lafourche, St. Mary and Terrebonne and some few others were and are. In Lafayette, on the western end, and West Baton Rouge and Point Coupee, on the northeastern end of the Louisiana sugar belt, the sentiment is strongest against the further cultivation of cane and for the substitution of cotton. The chief reason why cotton has been picked out is because it is not regulated and can be raised there and because the regulation of sugar prices took away from them their only salvation in the shape of very high prices, which would have compensated them for the extremely poor tonnage obtained after the period of the great drouth which inflicted heavy agricultural and live-stock losses in Louisiana and Texas, and to some extent other Southern States as well as Louisiana and Texas.

But the cultivation of cotton in erstwhile sugar districts is not confined strictly to the outskirts of the belt. It is being discussed wherever conditions are favorable, although it is not to be thought that the defection from cane this coming year will put any big dent in the crop that good growing weather could not easily offset. The cotton "craze" has come near to the city of New Orleans in a parish like St. Charles, where it was never before cultivated. There is a large cotton field and new gin in that parish less than fifty miles from the heart of this city in a part hitherto thought to be almost sacredly devoted to sugar exclusively. What is more, the owners of that operation are contemplating expansion, so satisfied are they with the results attained from cotton last season.

The only spot on the Louisiana sugar map where greater cane acreage is certain is on the lower coast. Plaquemine and St. Bernard parishes, below New Orleans. Some time ago several old sugar plantations on the west side of the Mississippi River, out of the sugar game for years, were authoritatively reported to be back in the cultivation of sugar-cane. This week the owners of one of the largest plantations on the East Side, where a new syrup and sugar factory is in operation this year, announced their return to the sugar fold, out of which they have been wandering for almost ten years.

While it is possibly true that large cane-land interests may make larger plantings for the 1918 crop, small cane growers will certainly not do so under present food-control conditions.

The proportion of molasses in the crop now being harvested will be greater this year than usual because of the extreme greenness of the cane, resulting in better and more molasses and less sugar. More first and second molasses will be made this year than heretofore, and less blackstrap or third molasses, the chief ingredient of the most nutritious stock feeds and alcohol. Manufacturers who use sugar in large quantities and who are prevented from buying it in suitably large lots have turned to first and second molasses, of which they are buying heavily because they are ideal substitutes, containing as they do considerable sugar in solution. They also enjoy the added attraction of not being under

the control of the National Food Administration in any way.

Due to delays in starting grinding, labor shortage, and interruptions for general windrowing of the cane to avoid great disaster from the uncommonly early October freezes this year, many of the factories will be grinding until January, although some are already getting ready to close down.

A practical test of natural gas as fuel for a sugar factory was made with eminent satisfaction last week at the plant of the Terrebonne Sugar Co., near the Houma gas fields of the McCormick interests. The company hoped to start the grinding season with natural gas, but, due to the delay in getting the necessary piping, were prevented from doing so. From now until the end of grinding they will use natural gas exclusively. Others undoubtedly will follow their lead next year if they can get the pipe.

Several thousand head of Texas drouth section cattle are being pastured and fattened on the lower coast on large sugar plantations now out of cultivation.

Deposits in the World's Leading Banks.

In its annual international banking issue the Statist of London presented its customary annual review of the international banking situation, giving, among other data, the following statement, comprising those banking institutions whose deposits and current accounts exceeded £20,000,000 at the close of 1916:

| Banks. | Deposits and current accounts. | |
|--|--------------------------------|---------------|
| | 1880 | 1916 |
| 1. State Bank of Russia..... | £ 37,371,000 | £ 285,353,000 |
| 2. Imperial Bank of Germany..... | 8,923,000 | 233,355,000 |
| 3. Bank of England..... | 33,809,000 | 178,865,000 |
| 4. Deutsche Bank..... | 3,215,000 | 175,169,000 |
| 5. London City and Midland Bank..... | 2,227,000 | 174,621,000 |
| 6. Lloyds Bank..... | 5,785,000 | 151,368,000 |
| 7. National City Bank, New York..... | 3,249,000 | 125,825,000 |
| 8. London County and Westminster..... | ..... | 120,368,000 |
| 9. Banque Russo-Asiatique..... | ..... | 117,927,000 |
| 10. Barclay's Bank..... | ..... | 107,170,000 |
| 11. Russian Bank for Foreign Trade..... | 2,065,000 | 102,115,000 |
| 12. Guaranty Trust Co. of New York..... | ..... | 100,335,000 |
| 13. National Provincial Bank of England..... | 29,138,000 | 100,219,000 |
| 14. Bank of France..... | 25,011,000 | 99,867,000 |
| 15. Dresdner Bank..... | 4,752,000 | 87,991,000 |
| 16. Direction der Disconto-Gesellschaft..... | 3,229,000 | 82,229,000 |
| 17. Volga-Kama Commercial Bank..... | 5,085,000 | 81,277,000 |
| 18. Credit Lyonnais..... | 16,484,000 | 80,062,000 |
| 19. Oesterreichische Credit-Anstalt..... | 6,920,000 | 77,420,000 |
| 20. National Bank of Commerce, New York..... | 3,446,000 | 70,557,000 |
| 21. Banco de la Nacion Argentina..... | ..... | 65,970,000 |
| 22. Parr's Bank..... | 3,137,000 | 62,169,000 |
| 23. Commercial Bank of Siberia..... | ..... | 60,217,000 |
| 24. Bank of Montreal..... | ..... | 60,214,000 |
| 25. Banque Internationale de Commerce de Petrograd..... | 1,601,000 | 59,206,000 |
| 26. Russian Commercial and Industrial Bank..... | ..... | 57,279,000 |
| 27. Bankers' Trust Co., New York..... | ..... | 56,927,000 |
| 28. Union of London and Smiths Bank..... | 13,358,000 | 56,236,000 |
| 29. Continental and Commercial National Bank, Chicago..... | ..... | 54,606,000 |
| 30. Chase National Bank, New York..... | ..... | 53,429,000 |
| 31. Comptoir National d'Escompte de Paris..... | ..... | 53,189,000 |
| 32. Capital and Counties Bank..... | 3,465,000 | 52,296,000 |
| 33. First National Bank, New York..... | 3,272,000 | 52,013,000 |
| 34. London Joint Stock Bank..... | 12,645,000 | 49,078,000 |
| 35. Banca Commerciale Italiana..... | ..... | 48,612,000 |
| 36. Darmstadter Bank..... | ..... | 48,490,000 |
| 37. Bank of New South Wales..... | 9,039,000 | 46,899,577 |
| 38. Canadian Bank of Commerce..... | 2,318,000 | 46,417,000 |
| 39. Bank of Spain..... | 23,751,000 | 46,043,000 |
| 40. Societe Generale (Paris)..... | 13,353,000 | 44,738,000 |
| 41. Oesterreichische Landerbank..... | 1,522,000 | 44,736,000 |
| 42. Central Trust Co., New York..... | 1,054,000 | 42,007,000 |
| 43. Credito Italiano..... | ..... | 41,675,000 |
| 44. Royal Bank of Canada..... | ..... | 40,141,000 |
| 45. Hanover National Bank, New York..... | 1,820,000 | 39,324,000 |
| 46. Bank of Japan..... | ..... | 38,922,000 |
| 47. Hongkong and Shanghai Banking Corporation..... | 4,728,000 | 37,830,000 |
| 48. Mechanics & Metals National Bank..... | ..... | 37,219,000 |
| 49. First National Bank, Chicago..... | 2,664,000 | 35,388,000 |
| 50. Manchester and Liverpool District Bank..... | 10,825,000 | 35,347,000 |
| 51. Banca d'Italia..... | ..... | 34,637,000 |
| 52. Farmers' Loan & Trust Co., New York..... | 2,091,000 | 33,773,000 |
| 53. Bank of Liverpool..... | 3,462,000 | 33,239,000 |
| 54. Equitable Trust Co. of New York..... | ..... | 32,368,000 |
| 55. Bank of New Zealand..... | 8,967,000 | 31,061,000 |
| 56. London and South Western Bank..... | 1,787,000 | 30,652,000 |
| 57. London and Provincial Bank..... | 2,491,000 | 30,513,000 |
| 58. Societe Generale de Belgique..... | 17,700,000 | 29,448,000 |
| 59. National Bank of South Africa..... | ..... | 28,680,000 |
| 60. Standard Bank of South Africa..... | 6,082,000 | 28,519,000 |
| 61. Chartered Bank of India, Australia and China..... | 8,115,000 | 28,014,000 |
| 62. First National Bank, Boston..... | 1,000 | 27,237,000 |
| 63. Bank of Scotland (Feb. 28, 1917)..... | 12,508,000 | 27,161,000 |
| 64. Yokohama Specie Bank..... | ..... | 26,450,000 |
| 65. Union Bank of Australia (Ltd.)..... | 6,767,000 | 26,164,000 |
| 66. National Shawmut Bank, Boston..... | ..... | 25,929,000 |

Fish Sales Nearly Doubled.

Wholesale fish dealers throughout the Southeastern States report increased sales of fish amounting to 75 per cent. during September, and credit this increase to the publicity given fish by the Food Administration.

Southern Industrial Activities.

During November the Construction Department of the MANUFACTURERS RECORD published 4219 items relative to industrial developments, erection of buildings, railroad and financial operations, and general business interests of the South and Southwest. The items shown during the preceding 10 months numbered 41,929. Thus up to December 1 a total of 46,148 of these statements concerning Southern industrial and constructive developments has been published by the Construction Department, these items appearing first in the Daily Bulletin and later in the weekly edition of the MANUFACTURERS RECORD.

The detailed summary for November follows:

| Industrial and Developmental. | |
|--|--------|
| Airplane Plants, Stations, etc..... | 4 |
| Bridges, Culverts, Viaducts..... | 30 |
| Canning and Packing Plants..... | 16 |
| Clayworking Plants..... | 11 |
| Coal Mines and Coke Ovens..... | 116 |
| Concrete and Cement Plants..... | 5 |
| Cotton Compresses and Gins..... | 51 |
| Cottonseed-Oil Mills..... | 6 |
| Drainage Systems..... | 20 |
| Electric Plants..... | 47 |
| Fertilizer Factories..... | 5 |
| Flour, Feed and Meal Mills..... | 42 |
| Foundry and Machine Plants..... | 62 |
| Gas and Oil Enterprises..... | 159 |
| Hydro-Electric Plants..... | 2 |
| Ice and Cold-Storage Plants..... | 32 |
| Iron and Steel Plants..... | 9 |
| Irrigation Systems..... | 5 |
| Land Developments..... | 54 |
| Lumber Manufacturing..... | 89 |
| Metal-Working Plants..... | 5 |
| Mining..... | 130 |
| Miscellaneous Construction..... | 46 |
| Miscellaneous Enterprises..... | 38 |
| Miscellaneous Factories..... | 108 |
| Motor Cars, Garages, Tires, etc..... | 118 |
| Railway Shops, Terminals, Roundhouses, etc..... | 10 |
| Road and Street Work..... | 180 |
| Sewer Construction..... | 47 |
| Shipbuilding Plants..... | 17 |
| Telephone Systems..... | 11 |
| Textile Mills..... | 46 |
| Water-Works..... | 46 |
| Woodworking Plants..... | 55 |
| Buildings. | |
| Apartment-Houses..... | 52 |
| Association and Fraternal..... | 33 |
| Bank and Office..... | 59 |
| Churches..... | 81 |
| City and County..... | 34 |
| Courthouses..... | 21 |
| Dwellings..... | 252 |
| Government and State..... | 65 |
| Hospitals, Sanitariums, etc..... | 46 |
| Hotels..... | 47 |
| Miscellaneous..... | 48 |
| Railway Stations, Sheds, etc..... | 19 |
| Schools..... | 143 |
| Stores..... | 115 |
| Theaters..... | 22 |
| Warehouses..... | 53 |
| Railroad Construction. | |
| Railways..... | 61 |
| Street Railways..... | 6 |
| Financial. | |
| Corporations..... | 61 |
| New Securities..... | 271 |
| Fire Damage, etc..... | 3,323 |
| Machinery, Proposals and Supplies Wanted..... | 549 |
| Total..... | 4,219 |
| Previously detailed for 10 months..... | 41,929 |
| Total for eleven months—January to December 1..... | 46,148 |

Girls' Canning Clubs South Doing Praiseworthy Work.

The Girls' Canning Club of Morehouse parish, Louisiana, has demonstrated what may be done by others. Mary Elizabeth Barham of Oak Ridge netted \$169.51 from a tenth-acre plot after taking all expenses for cultivation, figuring her labor at the rate of 10 cents an hour, also the cost of canning, containers, etc. Aline Elam of Collinston had the second best record, showing a net profit of \$166.93. Another prize winner was Florence Laing of Mer Rouge, showing a net profit of \$142.87, with a yield of 2565 pounds from her tenth acre of tomatoes.

After winning prizes at the Louisiana State Fair at Shreveport the products were exhibited at the National Farm and Livestock Show at New Orleans, and will be sent to Washington, D. C., as a permanent exhibit to show what the canning clubs' girls are doing in the South.

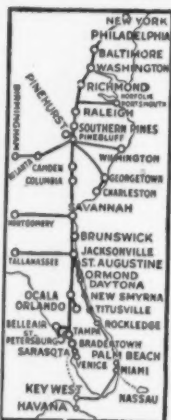
The chairman of the Railroads War Board states that investigations of the movement of freight cars made by the Baltimore & Ohio Railroad and other railroads show that 37 per cent. of time is spent in hands of shippers, only 11 per cent. in actual motion and 52 per cent. at terminals, side-tracks and repair shops.



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| | |
|-------------------------------|-------------------------------|
| Lv. New York.....9.15 a.m. | Ar. Belleair.....9.31 p.m. |
| " W. Philadelphia..11.36 a.m. | " St. Petersburg.. 10.20 p.m. |
| " Baltimore.....1.41 p.m. | |
| " Washington.....3.15 p.m. | Ar. St. Augustine...2.30 p.m. |
| Ar. Savannah.....8.30 a.m. | " Ormond.....5.03 p.m. |
| " Jacksonville.....1.15 p.m. | " Daytona.....5.16 p.m. |
| " Tampa.....7.55 p.m. | " W. Palm Beach..11.40 p.m. |

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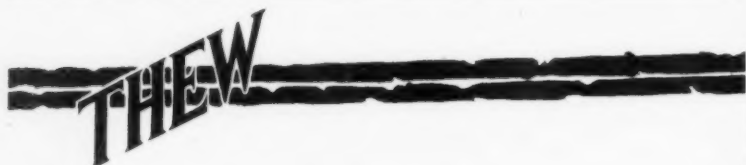
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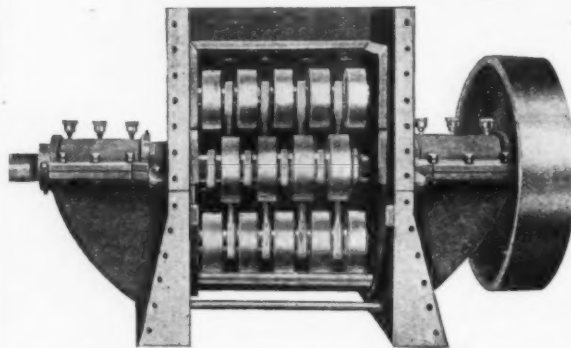
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